

Application Specialist level 2, Working Diary

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<p>This thesis has been written in a dairy format, and it tells a daily life of a person working as IT-Specialist in a service desk job. The work consists of eight weeks of documentation of the working days that are during the days 15.03.2021-17.05.2021. The written days consists of work and such done during those working days, what was accomplished and learned. It follows specifically how the days are spent as an employer in an IT-company. Everything is written during the days as notes and then written in the actual thesis. It displays the things learned and if the goals of the week have been reached.</p> <p>The writer works in IT-Company as a level two helpdesk application specialist. The group consists of approximately 17 members in our level two team and multitude of members in level one and three teams. There is also a project and maintenance groups. We all work together to solve IT-related issues within our customer groups.</p> <p>The conclusions of the thesis have been formed at the end where the challenges and learned new information has been discussed. If there is anything to be improved has been taken into consideration as well to survey the writer personal growth and skill level. The things that have been written might have been censored or altered due to copyrights or prevention of personal information leaking. The thesis can be used to reflect on own learning and possible improvement of personal attributes and habits.</p>	
Keywords Application specialist, helpdesk, user experience, users	

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1 Introduction

Thesis will be written in a diary format for a period of eight weeks during the time: 15.03.2021 – 17.05.2021. Daily reports will be written about work tasks, objectives, goals and accomplishments. Weekly analysis will also be done to reflect on the weekly objectives, goals and how well were they achieved. The official starting day for the writing will be 15.03.2021 and will go on for eight weeks from there. There will be extra weekend shifts and possible holidays included as not all the weeks are the same. The shifts will be mainly morning shifts from 8:00 till 16:00, but also evening shifts or early morning shifts will be included.

Working environment during the thesis is as a remote worker from home, but the employer is an IT-Company in Finland. The time this took place was during the global Covid-19 pandemic, so most of the work in every company has been moved to distance work. In usual situation, at least half of the work would be done in the office, which is in Helsinki.

My working area is in the second level of customer support, with a title of application specialist. In total there is three different categories, which consist of level 1 as the first help to customers. They handle most of the upcoming tickets and forward them to needed location. Sometimes this location being us at level 2, where we take over the issues level 1 could not handle. There is also level 3, where the developers of the program are working, and the most difficult issues will be directed to them. Other side teams are project team, which handles installation of new programs, updates and keep everything up to date. There is also extra maintenance sector, whose job is to handle all the physical installations and changes, based on the location.

The job requires good base knowledge of computing, programming, customer service skills and problem-solving skills. Being able to adjust to new rapidly evolving technology and new computing related subjects helps on the day-to-day work. Being able to handle stress and work under pressure are helpful traits as you are expected to be solving the issues the customer might have fast and effectively. There are moments when you are supposed to call a customer and they will not be happy what you have to say, but the important thing is to not take anything personally.

Some of the used material will be notes taken during the working days and some of the older solved incident materials available to me, to help me write down the issues and how they were solved as precisely as possible.

1.1 Terminology

Level 1 Support = The first contact of the customer, they will be taking all the tasks, solving the ones they can and forwarding rest to higher level support

POS System = Point of Sale is the time and place where a retail transaction is completed and the system tracking these

Ticket Team = Team solving incidents that the customers may have, usually issues or updates related to the system

Project Team = Team handling updates and new installations of the systems our customers are using, usually through remote connection

PowerShell = Cross-platform task automation solution made up of a command-line shell, a scripting language

SQL Server = A relational database management system developed by Microsoft.

SQL database = An organized collection of structured information, or data, typically stored electronically in a computer system.

CMD = Cmd.exe is the default command-line interpreter for multiple platforms including Windows

RPR-Connection = A protocol standard designed for the optimized transport of data traffic over optical fiber ring networks.

Remote Connection = A connection made to a separate computer that can be then used by the host from their own computer

Cloud Network = A computer network that provides network interconnectivity between cloud based or cloud enabled application, services and solutions

SAP-system = System Applications and Products in Data Processing.

Emergency Contact Phone Shift = Phone number that stores can use to contact for quick help incase of emergency during morning hours

Variable = A symbolic name associated with a value and whose associated value may be changed

PowerShell ISE = A PowerShell where you can run commands and write, test, and debug scripts in a single Windows-based graphic user interface

Script = A programming language for a runtime system that automates the execution of tasks that would otherwise be performed individually by a human operator

CSV = A comma-separated values file is a delimited text file that uses a comma to separate values

Veikkaus = Finnish lottery services provider

Miradore = A sytem to ensure device and data security as well as data compliance across the organization

2 Current workplace

2.1 Working situation at the start of this thesis

I am working in a company that is an IT-Company in Finland, as a level 2 application specialist. My daily work consists mostly of solving varied issues any of our customers have with the current and the new upcoming POS system. I am mainly targeting the new system's incidents and issues as that is going to be in every store in the future, but also handling the older ones when there is need and time for it. My work here started at the end of year 2020, and I was hired for the ticket team. In the future my title might change to a project team if I am willing to change, but as of now, no projects are being handled by me. During the middle of this thesis, we started a new style of shift, where we are directly answering the calls from the stores who begun using the new POS system. Normally during ticket shifts, we are the ones doing the calling as we need information or have solved a case, but this changes things for these shifts, and the stores can get direct help with any issues faster. The work was supposed to be normal office job, where we solve the tickets, but as of Covid-19 outbreak all the work was transferred to home office, where we work from home with the IT-Company provided equipment.

Even though the teams are in different countries with level 1 and level 2 teams, we are often working together to solve issues and have wide range of shared instructions on how to solve an issue by the title. We use Teams to communicate and sometimes exchange information by phone or through mail. The level 1 team also handles the entries of incidents during morning and weekend shifts, and then either call us or contact us through Teams, when something time sensitive appears that needs immediate attention.

The future of our teams in terms of office working is still unclear. And at least until end of year 2021 we are still working from home offices. I do think it is beneficial to work from home instead of commuting to physical office every day as it saves a lot of daily time. Although some people might have problems with not seeing their colleagues outside of their computer screens via Teams calls.

2.1.1 The Customers

The customers we are handling the incidents for are mainly stores, gas stations or convenience stores all around Finland, Estonia and Russia. Our system is in use in their cashier machines, and we are handling any issues related to the system. The incidents go either through level 1 investigation team by phone or email, where it gets sent to level 2 team if they are unable to solve the matter. With the new implement of calling service for

new system users, the calling can also now directly reach level 2 support but should be limited to users that have started using the new system no longer than two weeks ago. To help solve the cases presented to us, we usually use: PowerShell, SQL Server, SQL databases, CMD, RPR-connection and remote connection to customers PC directly. We also have direct access to any of the computer's folders via large range of nodes in a private cloud network, this helps transferring the files or folders from store to store.

2.2 The skills needed to succeed in application specialist / customer service work

Important part of the job is basic computational skills and use of basic computer programs. Understanding how networks, databases, binary work and understanding code helps to solve the problems in a more efficient manner. Many of the issues also required the why, how and when answer, where the customer demands to know more information of the problems and how it happened. Another important trait to own is customer service skills, as often, direct contact with the customer is required. There are times when things do not work out while being time sensitive and someone might not be happy about it, so a bit of stress handling is required. Having to deal with people with different technical backgrounds also changes things up and patience is required to properly explain the situation and guide the person through the resolution and informing them how to prevent similar errors from happening in the future. Prioritizing is important thing to learn as well and understanding which issues are more time sensitive than others, sometimes stores might hurry a certain assignment, even though there are more important matters to handle, and everyone needs to personally prioritize the more urgent issue. Keeping all the tasks you might have in order and not forgetting anything down the road is also important, as sometimes a critical issue might get forgotten under many others if they come at the same time. To avoid this, person should regularly check the list of tasks and incidents in case there is forgotten ones that needed immediate attention. There are also cases where a problem has appeared, and just disappeared and solved itself due time. It is a great idea to call some of the older incidents and check if the issue still persists.

2.2.1 Stakeholders in my company

The inner stakeholder group consists of the members mentioned here:

- Colleagues
- Supervisors
- Team Supervisors
- Customer Survey Supervisors
- Maintenance
- Project Team
- Level 1 Support
- Level 2 Support
- Level 3 Support

The outer stakeholders consist of:

- Customers
- Users
- Quality Assurance Supervisors
- Customer Group Customer Support
- Customer Technical Support

The inner stakeholders all belong under the same working group, and we all work together to make the customers happy and share the solving of the issues within the group. The level 1 Support will let Level 2 Support handle everything that does not belong to them or what they cannot solve themselves, meanwhile Level 2 sends the hardest issues to Level 3, who then usually solves the problem and returns them to Level 2, to be contacted with the customers in terms of guidance or simply stating that the task is done or solved. Supervisors are making sure everything runs smoothly and the tasks get handled in time and are reported in a correct manner. Maintenance is the team who physically travels to the stores for issues that cannot be solved without contact, these usually include broken cables, hardware issues, connection problems that cause distance connection to fail and any hardware updates. Project team is handling the updates and firmware changes to the machines as well as new store openings, whole system changes or changes in the infrastructure. Customers Support Supervisors are making sure that the customer survey numbers reach weekly, monthly and yearly goals and the service is what is to be expected. They are also the ones holding weekly online meetings where we discuss issues, solution and check the weekly numbers together.

The outer stakeholder group consists of the whole user and customer base and their support structure. They have their own IT-support teams who offers them help in the intertwined SAP-system. We have no vision or control over this system, so these teams have the mission to the handle their side of the program. However, the system is connected to ours, so we must cooperate to solve the issues that happens between the system connection. They have their own customer satisfaction teams that are making sure that everything is handled as it should and within time limit. Quality assurance members are making sure that the solutions to the issues are correct, working and within good taste. Customers and end users are the ones using the programs daily and reporting the issues to either us or the other teams. The technical skill level of the users may vary quite potentially, and some users need more thorough explanation and guidance than others. By maintaining the balance and both ways connection with the teams we are all able to handle all the tasks and incidents daily within appropriate timeframes. The whole ecosystem needs to be maintained to keep up with the ever-increasing tasks.

Working Diary

2.3 Week 1

15.03.2021

The week started off early as my first workday was from 6.30 until 14:30. During these morning shifts you also have emergency contact phone shift, which means you are supposed to take emergency calls from either the store directly or level 1 service if there is an incident that needs to be handled right away.

Aside from the calls that need to be handled, I have couple of tasks for today that need always need to be handled before the end of the day, either before or after noon.

First thing I wanted to accomplish was to create a simple PowerShell script that would map all the network storages for me automatically with a simple press of a button. Without this I would have to manually map four different network locations through PowerShell and by typing my password every single time. I saved my password in a variable and used it to automatically enter it to the field where the storage was located. I also set a password for the script so it could not be opened by anyone except me.

```
1 $secpasswd = ConvertTo-SecureString "<PASSWORD>" -AsPlainText -Force
2 $mycreds = New-Object System.Management.Automation.PSCredential (USER", $secpasswd)
3 New-PSDrive -Name "G" -PSProvider FileSystem -Root "LOCATION" -Persist -Credential $mycreds
4 New-PSDrive -Name "Q" -PSProvider FileSystem -Root "LOCATION" -Persist -Credential $mycreds
5 New-PSDrive -Name "M" -PSProvider FileSystem -Root "LOCATION" -Persist -Credential $mycreds
6 New-PSDrive -Name "K" -PSProvider FileSystem -Root "USER" -Persist -Credential $mycreds
```

Figure 1: Automatic login script for PowerShell

I used PowerShell ISE to create the script and made handy shortcut to my computer.

The emergency contact phone rang once during the morning, close to 7.00.

A store had an issue with the application that handles all the products not opening and this had to be set as priority.

I checked the logs of the day and what had happened in the computer. Made a check that showed that the computer had been rebooted and the database access had been reset.

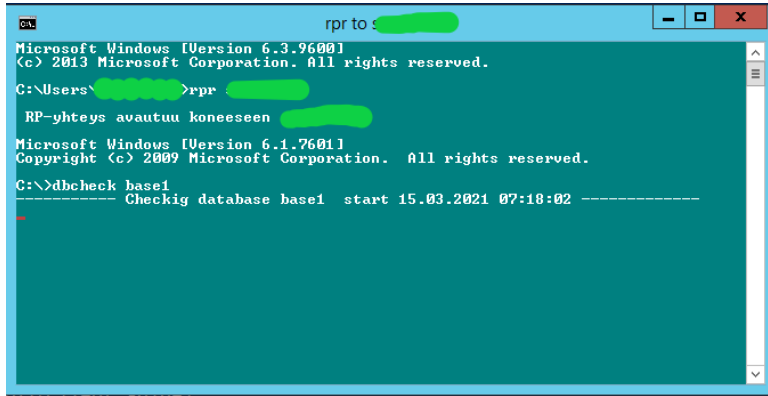
```
The SQLBASE service is stopping.
The SQLBASE service was stopped successfully.

[C:\>] PS C:\> net start sqlbase
The SQLBASE service is starting.
The SQLBASE service was started successfully.
```

Figure 2: SQLBase resetting

I did one more database reset but still got the error: "Connecting to database failed".

Next step was to take RPR (Resilient Packet Ring) connection to the stores main server and perform two database validity checks.



```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

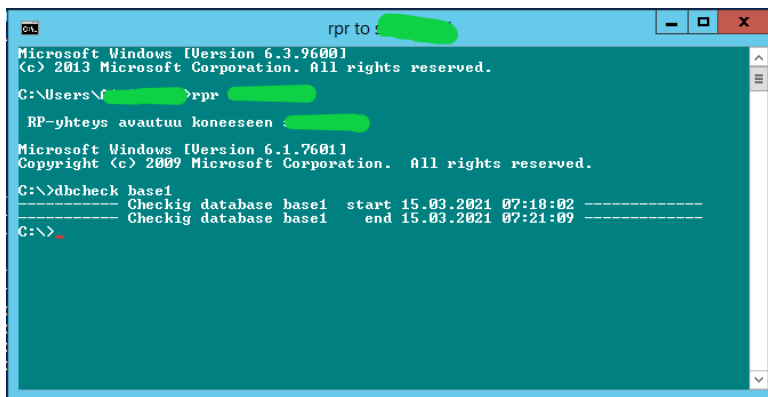
C:\Users\[redacted]>rpr [redacted]

RP-yhteys avautuu koneeseen [redacted]

Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\>dbcheck base1
----- Checkig database base1 start 15.03.2021 07:18:02 -----
```

Figure 3: RPR-Connection Data check 1



```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\[redacted]>rpr [redacted]

RP-yhteys avautuu koneeseen [redacted]

Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\>dbcheck base1
----- Checkig database base1 start 15.03.2021 07:18:02 -----
----- Checkig database base1 end 15.03.2021 07:21:09 -----

C:\>
```

Figure 4: RPR-Connection Data check 2

This will produce an error if the database cannot connect properly. I also checked the user logs which would tell me that there is something wrong if the file size was too small, but it looked normal sized.

Next step was to connect to the server with PowerShell and check that the location was correct for the database to look for the files. Everything matched so the problem was not there.

I had to take a remote connection to the server computer directly and go check the users, and it turned out some of the users were still active in the database, even though connection was not made. This could have been the cause of power loss or similar event.

This could be fixed by going doing few checks to the database through SQLTalk application and kicking out the “ghost users”.

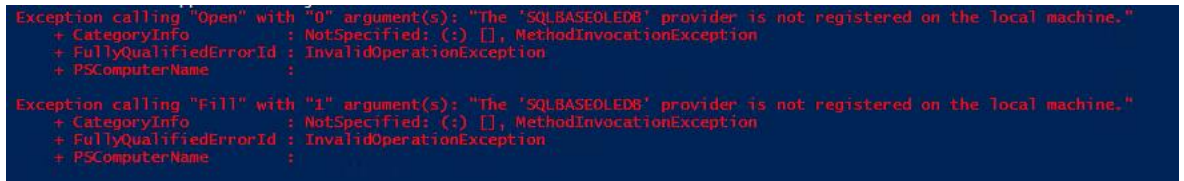
This did the trick, and the application was ready to be opened, few tests with the store and everything seemed to work well. Next step from here would have been to renew the whole database, so this time we were lucky the previous step worked.

Rest of the day was reserved for doing certain tasks, which mainly included activating webstore payments for new stores, this is done by running one of the two possible scripts

in PowerShell. One of the scripts is more reliable and can only be used on one store at the time, and every single line of code must be written individually. The other one is straight up script where you enter the store information, and it can handle multiple stores at the same time. The problem here is sometimes the information can be wrong and must be changed with another script. The second script is getting the information from a separate CSV (comma separated file), but sometimes the file gets errors due to Ä, Ö and Å characters.

I had to do five of these today and four of them went as planned.

The last one was problematic as it was giving me the following error.

A screenshot of a PowerShell console window with a dark blue background and red text. It shows two error messages. The first message is for the 'Open' method, and the second is for the 'Fill' method. Both messages indicate that the 'SQLBASEOLEDB' provider is not registered on the local machine. The error details include CategoryInfo, FullyQualifiedErrorId, and PSComputerName.

```
Exception calling "Open" with "0" argument(s): "The 'SQLBASEOLEDB' provider is not registered on the local machine."  
+ CategoryInfo          : NotSpecified: (:) [], MethodInvocationException  
+ FullyQualifiedErrorId : InvalidOperationException  
+ PSComputerName        :  
  
Exception calling "Fill" with "1" argument(s): "The 'SQLBASEOLEDB' provider is not registered on the local machine."  
+ CategoryInfo          : NotSpecified: (:) [], MethodInvocationException  
+ FullyQualifiedErrorId : InvalidOperationException  
+ PSComputerName        :
```

Figure 5: PowerShell error

The problem was fixed by running a command line prompt that activated the use of 32bit applications on the host computer, after that the first mentioned script worked fine and I got the job done.

Last part before finishing the day was running a distance update package on the cashier machines of a store, so they would receive data from lottery (Veikkaus) machine and accept Lotto games. This was easily done using a program called Miradore. After applying the update, I called the store and we checked together that the lottery features worked as they were meant to.

16.03.2021

Last month in IT-Company, we started a new support hotline service for helping starting stores who change to the recently changed marketing automation system and aim to help them for two weeks with any questions regarding the system. The stores will generally have a number they can call with any questions already, but now there is a new option "2" in the call, where they can get answers right away. Today's shift is all about answering the calls on the hotline and working on the issues the stores might have. The problem with this method however is that anyone who calls the main number is also able to press the "2"-option, which means they can technically skip the usual queue that they would have to take to get their problems in the open. This means that some stores will call the new number even though they have been open for more than two weeks. And this on the other hand will take space from the actual newly opened stores.

Calls today mostly consisted of little questions regarding the new system. There was some adjusting of the interest rate that the customers pay when their bills are late, this had to be adjusted to the local norms.

Some problems with the self-register cashiers, where the machine freezes at some point when the payment is being processed. This meant that the sales handling program had to be reinstalled and configured to allow the solid connection to the databases which sometimes caused problems during rush hours.

Some users had error in their login details and could not log in to the system all together. This is usually fixed by resetting the user's password and prompting them to change to a new one after a one-time login with the temporary password, however in the case today it did not work and the details of the username and password had to be sent for investigation if they were wrong or corrupt, all to be done now is wait for the answers.

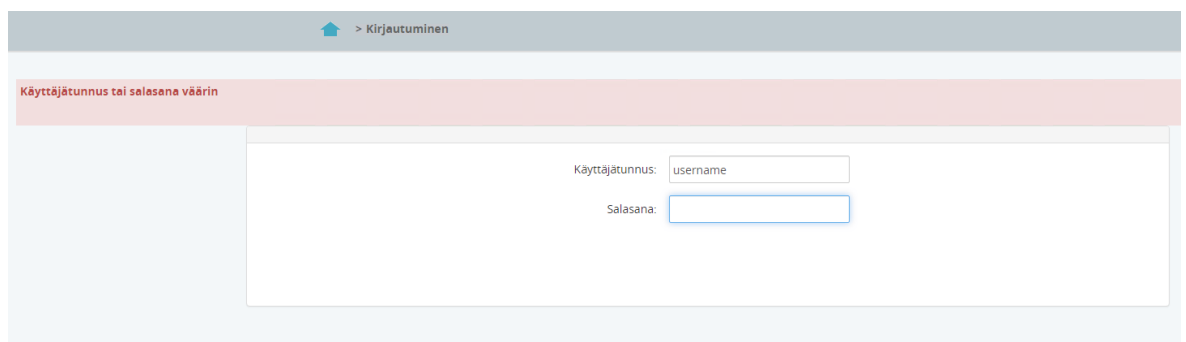
The image shows a web browser window with a login page. At the top, there is a navigation bar with a home icon and the text '> Kirjeutuminen'. Below this, a red banner displays the error message 'Käyttäjätunnus tai salasana väärin'. The main content area contains a login form with two input fields: 'Käyttäjätunnus:' with the value 'username' and 'Salasana:'. The form is set against a light blue background.

Figure 6: Logging in menu screen

This seemed to be the theme for the rest of the day as most of the calls were about username and password not working, some from newly opened stores and some from ones that started as far as more than a year ago.

Closer to the end of the workday we had a Teams-meeting with all the other workers currently present where we discuss the weekly problems we had, shared some new info about solutions to these problems, talk about how everyone is doing and in general socializing with each other for a 30minute period. It is a very useful way to get some help for any tasks you may have and cannot overcome them yourself as someone else might have already solved something similar in the past. After the meeting I had to look up some older user data from the database using basic SQL-commands and few column deletions to update the database.

```
select * from postterminalparam where posid='2'
```

Figure 7: SQL command to search database

17.03.2021

I started the day one hour early at 7:00 and did one hour extra, until 17:00. This because the new hotline has opened a whole lot of new issues with the new change's stores are handling so there was need for few extra hours to solve them.

I started up by checking emails and noticed few new tasks was forwarded to me.

First thing to handle was few shifts that the stores forgot to close, so they were still open even though the day had already passed. I went to close those shifts down for them and the system did the rest. After this the store was able to do the daily accounting for the cashier machines. Called the store, made sure everything was working as supposed to and closed the tasks. One of the stores were not answering the call so I just emailed them the instructions how to handle the accounting part after they arrived. The store would open at 8:00 so there was no one there at the time.

Next store had an issue with a receipt that was lost as the transaction happened June of 2020. I had to go browse the database for some additional information about the details of the receipt as the information provided was very vague, after finding the exact date, amount and cashier number I was able to find the receipt through the new system's database access.

There were also few older incidents from few months back where the store had some issues that already solved themselves or were solved by the stores. Usually there is one attempt to contact them via phone, but if there is no answer then email is the best option, there is usually email and phone number attached to every incident and task where to contact the person responsible.

There has been a lot of problems with printers lately, mainly about the prints going where they should not or the size of the print not matching the papers. One change I had to do today was to take connection to their server machine and configurate the stores printers again so they would accept connections from the ports connected from the server and workstation computers. This was easily done via the printer manager advanced settings through windows as an administrator.


















Printers and Faxes (17)				
 IPF670	Printers and Faxes	Printers and Faxes	Canon IPF670	0 document(s) in queue
 Microsoft XPS Docum...	Printers and Faxes	Printers and Faxes	Microsoft XPS Document Wri...	0 document(s) in queue
 PRT_LPT1	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT2	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT3	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT5	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT6	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT7	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT9	Printers and Faxes	Printers and Faxes	Kyocera FS-C5025N KX	0 document(s) in queue
 PRT_LPT10	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT11	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT12	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT14	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT15	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 PRT_LPT16	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	Printer: Paper jam
 PRT_LPT18	Printers and Faxes	Printers and Faxes	Kyocera FS-4020DN KX	0 document(s) in queue
 Ricoh_monitoimilaitte	Printers and Faxes	Printers and Faxes	RICOH Aficio Ver7K P5	Printer: Toner/Ink low

Figure 8: Printer setup

A total of three stores had the following problem today. There is an interactive services notification that will pop up if something is trying to edit a file in your computer and the computer algorithm thinks that you should know about it. This usually does not show to the normal user, but only when someone is logged in as an administrator. However, for some reason it started popping up for multiple stores at the same time and as you close it however you choose to, it will pop back up again. It can get very irritating, and we got multiple calls about this issue. I started investigating the issue. I connected to the host computer remotely and went to see the active services that were open. There was one called: UI0Detect.exe, which is this exact program. It resides in the windows32 folder and somehow was triggered by a log text file that was edited by an outside user.

I started by turning off the whole alarm of the UI0Detect, which should remove the whole popup. However, this did not turn it off and after a while it was still popping back up even as its state selected as "Disabled".

Next attempt was to change the name of the file in question, thinking if the file does not exist, it cannot pop back up. This was easily done via PowerShell command run file name new file name. This did not require connecting to the host computer directly which made it easier because when connecting, you must call and ask for permission every time from the store. This did not work either and the pop kept coming back, I had to leave this issue for a later date as I was planning to ask for tips from a colleague of mine.

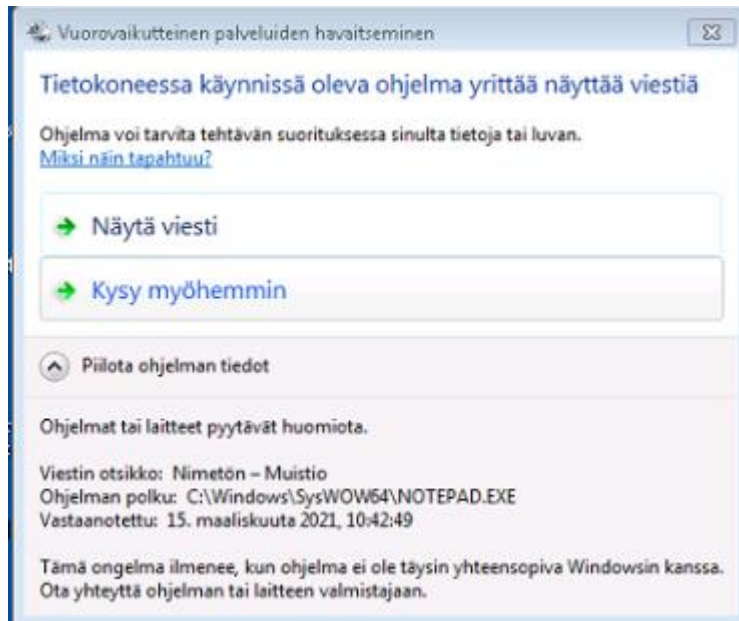


Figure 9: Interactive programs error

Last part of the day was to do a few user installations for cashier computers, as they were not properly logging in automatically. All that had to be done was to take remote connection to these machines, delete the user profile that was faulty and rebooting the computer. If this would not work for some reason, next step would be to reinstall the whole system. Some incidents later in the afternoon included more reinstallation of the users for the server computer and cashier machines as they would not open automatically. The root reason for this issue is still an ongoing investigation and every time this happens, we take the logfiles into notepad and send them forward for further investigation. The reinstalling user account fixes the issue temporarily though. More problems with the Veikkaus-machines also occurred where the scanners would not read the tickets. This seems to be a reoccurring theme and need to be more thoroughly investigated in cooperation with the Veikkaus maintenance workers.

18.03.2021

Another two hours of overwork today so working from 7:00 till 17:00 again. There was some issues with usernames and accounts in the list of daily incidents so I picked the ones somehow related to each other, few "Account not working" problems and couple of user account does not exist. These are usually fast to handle so it was a good way to start the morning off by shortening the list of tasks from everyone. First thing with the username problems is to check the details from a database and see that the user is trying to log in with correct details. By using SQL Servers inquiry functions you will be easily accessing the details of the workers, seeing their usernames, passwords and other information. As

the information seemed correct, I tried to do password reset that should prompt the new password on the stores end, but this did not work so that gave away that there was something wrong with the account details from when it was created. We have no access to these details, so this incident had to be sent forward for further investigation, which sometimes is the case with these. The others worked out fine and we were able to log the people in by resetting their passwords. Sometimes it can be tricky to know where to log in and what details to use because there is three variations of the username and password combos as the user must log into a certain domain to access the needed functions. One of the incidents was where the user had no account at all and that needed to be sent forward as we are not able to create the accounts.

Next store had issue of the daily sales reports showing double of what was real. The first checks need to be done to find out the actual sales that should be showing for the store and confirming that it is doubled. This usually occurs when the user sends the details twice to the machine by accident, computer freezing or power loss. There is two fixes for this issue. First to try is running the program again and hoping that it would receive the correct daily sales from the database and would overwrite the wrong number that have been doubled. This does not work often so the next step is to directly edit the database and fix the numbers. After updating the tables in the database, the numbers are sent to the server machine of the store which then sends the correct information to the cashier machines as well.

As basic windows errors are common when using computers, one of the problems commonly appearing is the issues of sales program not starting or not responding.

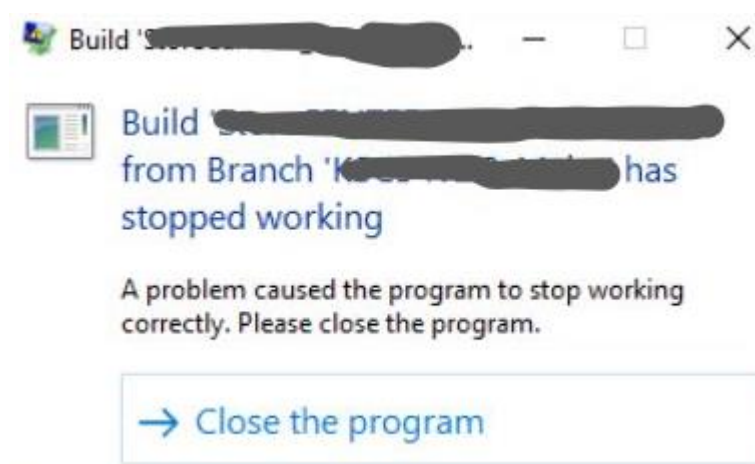


Figure 10: SCE crashing error

19.03.2021

Started the day with a store having problems with the sales reports. They came out completely blank.

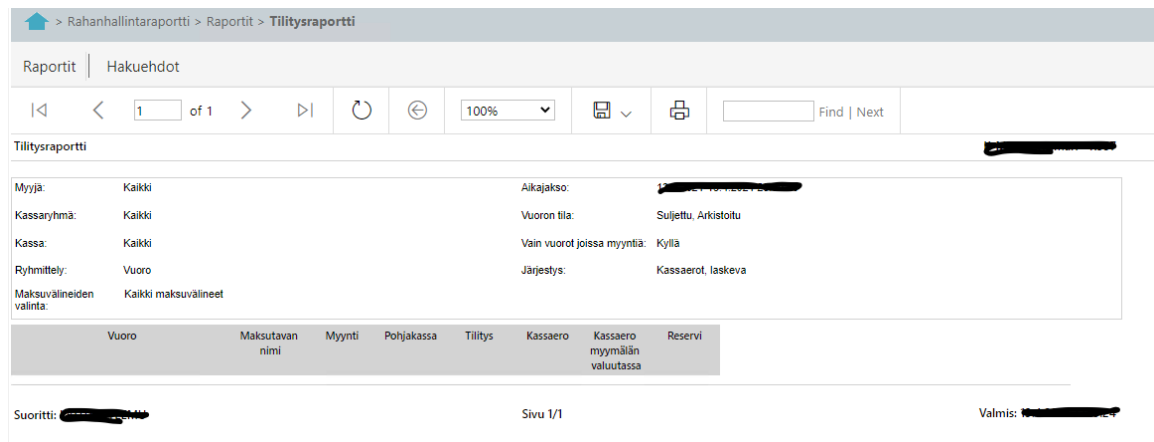


Figure 11: Sales report

The usual cause here is that the person printing the reports picks out wrong day, usually the ongoing day. This time they were looking for the correct shift, but the user had not closed the shift last day. If the shift is not closed, then the reports will not come in correctly. Even after manually closing the shifts and running the reports again it has some of the sales from the next day included as well. The sales- and other reports as well came out normally after closing the correct shifts. I called in the store and instructed to close the shifts on time to avoid more blank reports.

Store had an issue with Schenker delivery service reports printing from wrong printer. They are automatically printed when a package must be handled, and the server issues the reports to be printed on the correct printer. I called the store and instructed that the server's default printer had to be set to the wanted location, so it knows where to send the automatic reports. Changing this proved to be working and the reports printed in the wanted location.

We had a meeting with the group little after lunch, discussed the recent logging in and username issues, and shared some solutions. We went through all the different usernames and fields used to get the grasp of how the usernames work and which username goes where. These are sometime very confusing to the stores and has to be explained thoroughly.

Rest of the day was just normal printing-, username-, report-, and product problems. These seemed to be reoccurring theme today.

20.03.2021

Goal for the Saturday was mainly to reduce the number of ongoing tasks from the main list and my own "To-Be-Worked"-list as the amount is getting bigger and bigger every day and during weekends there is only two workers. So just closing as many tasks as possible and answering the emergency phone and responding to tasks there was what had to be done today. Saturday morning shifts start early at 6:30 and end at 14:30, because there is need for a single person to answer the emergency contact phone for the stores that open early or are open 24/7.

During the morning there was no calls, which gave me chance to focus on the already opened tasks I had on my list.

The first one being an automatic error report from one of the bigger stores in Finland, which meant some of their sales were not registered and the automatic reports came out false. This usually means that the number of products sold was much less of the similar one from exactly a week ago. This time few thousand products were missing from the registered list. However, there was some products that registered instead of a solid zero, so first task was to send a negative report with those exact products to the database, so they are removed and will not show as double in the reports. This can be done with a series of PowerShell commands that directly edit the database registry and send modification commands to the correct tables to remove the wanted columns. To avoid errors the files also need to be transferred to the temp-folder in case they will be needed or if something goes wrong in the negative amount transfer. The copies of these files will remain in the temp folder for two weeks and then disappear, that gives some room for possible errors and mistakes. After clearing all the unwanted data from the database, the new report is ready to be run and that can be done by taking a remote control of the server computer and sending the new sales amounts to the cashiers around the store. Sometimes with bigger stores this can take upwards of 1 hour. After the process finished, all the numbers were as they should, and no errors was found.

Next up was few easy to fix incidents where the store was not able to account the sales properly because there was a work shift open, I closed those and finished the reports for them.

Another store had an issue with products that showed 0,00 price as they were being bought, so they had no way of selling these products. As this was a older system store, the easiest way to make them sellable, was to do a simple edit in the database that listed the products automatic price and then set it as "Active", which meant that the product came through the cashier machine and was able to be processed normally.

Another bigger store had a problem with a campaign. There was a campaign of grapes, you could buy any green or dark grapes and they should give a solid price of two euros, with any combination. The store claimed that currently the campaign worked only the customer would buy two of the same kind, as in two greens or two dark sets of grapes. But any kind of mix would produce a normal price without the discount. After looking at the parameters of the campaign, there was plenty of errors there; products missing, combined price wrong and worst of all, there was a total of three of the same campaign that would mix with each other and produce a wrong result. There was need to make the whole campaign again, by firstly putting all the products that belonged to the campaign under a certain category, then using that category in the discount set, and let all of them be mixed with each other if the number of products was two. Obviously more can also be purchased if the total number was even. Then the price of two of any products was set to two euros. The campaign was tested with the store and seemed to be working as intended.

21.03.2021

Goal for today was to finish off some leftover tasks that was still undone from Saturday, some of these included waiting for some answer or the store not answering, sometimes getting the answer for Saturday or Sunday can be hard as some of the people from the stores are not working during the weekends.

Sunday morning shifts are from 9:00 till 17:00 and they include having the emergency contact phone whole day, there is only two people in total working as of Saturday as well so preparing well with proper instructions and such is important before the weekend shifts start as there is not many people to ask help from in case of problems. In a matter of emergencies that require fast timing there is an option to call the other workers who have a day off and get help if needed.

The day went quietly as Sundays tend to be peaceful and call free. I was able to handle most of the leftovers from Saturday and solve some earlier issues from start of the week. I also started working on a new set of notes related to the finished incidents and tasks. I aim to keep updating these notes as I go to find answers faster for the future tasks on similar issues I've already solved. I plan to make everything easy to find and separate the notes for the older and newer system. When the notes are ready, I will share them to others and new people especially as well to help them tackle the tasks I've solved if they re-appear.

- ▲ 1 Pikaoppaat
 - 1.1 Dedikoitu tuki HOTLINE
 - 1.2 Verkkosiemien määpäs
 - 1.3 Kirjautumistunnukset excel
 - 1.4 Projektin vastuuhenkilöt ja kauppojen startitiedot
- ▲ 2 Uusi järjestelmä SCEPOS
 - 2.1 Kassatyyppin tarkistus (Itsepalvelu vai normaali)
 - 2.2 PowerShell tsekkaukset
 - 2.3 SQL Server
 - ▲ 2.4 Laskutus
 - ▷ 2.4.1 Laskutusasiakas
 - ▷ 2.4.2 Tililaskutus / Tiliasiakkaat
 - ▲ 2.5 Tulostus
 - 2.5.1 Automaattitulostuksen poiskytkentä
 - 2.5.2 Automaattitulostukset eivät printtaannu
 - 2.5.3 Kampanjajulisteiden tulostaminen (kaikki tietyn päivän kampanjat)
 - ▲ 2.6 Kassa
 - 2.6.1 Automaattikirjautuminen ei toimi/ kassa pyytää salasanaa
 - 2.6.2 Satunnaistarkatuksia liian usein
 - 2.6.3 HSL-ohjelmisto
 - 2.6.4 Ip-Kassan kirjautumiskoodi
 - 2.6.5 Alennusmäärä väärin (esim 50% = 43%)
 - ▲ 2.7 Raportit
 - 2.7.1 Tilitysraportti
- ▲ 3 Vanha järjestelmä K90
 - ▲ 3.1 HDSupport
 - 3.1.1 Käyteyt hyödylliset taulut
 - ▲ 3.2 Tulostus
 - 3.2.1 Tulostuslokaatioiden nimien vaihto
 - ▲ 3.3 SCDM
 - 3.3.1 Itsepalvelukassa
 - ▲ 3.4 Laskutus
 - 3.4.1 Laskutusasiakas
 - 3.4.2 Tililaskutus / Tiliasiakkaat
 - 3.5 EVH/SVP/SAP

Figure 12: Personal notes

Week analysis 1

The week was challenging as it included two extra days: Saturday and Sunday. There was also two busy call days, but the problems we faced were solved easily without any unnecessary problems. Big numbers of new stores started or changed to our new system, so the call lines were hectic at points. There were few issues that took most of my time during the weekend as there are not many people working then and some of the issues are from the stores I am not doing often. Later during the day, it quieted down though, and

I was able to start my revisited notes, where I aim to document all the solutions to the past problems. This should help me and many others in the future with the ease of finding the solutions via easy mapping of the headings.

The direction of the issues seems to be heading to printing problems and label issues, where there is either too many labels printing or printing does not happen at all. Stores also had a lot of issues connecting the computers to correct printers and getting the prints out where they wanted. The new system presented for stores seem to mainly be created by coders, and not the actual user in mind. Some of the functions could be more user friendly.

I believe this week my knowledge improved in terms of understanding the printer details and how it communicates with the system. I also learned more about searching through log files using PowerShell, CMD and RPR-connection. I took my time understanding the log file meanings and browsed through multiple guides on how to read them. I also wrote my own notes and progressed in the big data file I am writing to improve my future development. Writing the own notes helps with remembering the past issues better when you are not only reading them from someone else, but instead typing them yourself with your own way of writing. This has proven to work for me to remember solutions better in the future. Finding the solutions later also proves to be much more efficient as having everything in one big file with a search functions works much faster than browsing through tons and tons of files to find that single answer to the issue at hand.

I would like to reflect little on the ongoing work from the perspective of a person who is working alone from home without any social contacts. The days are going by and the difference of working remotely from home as compared to someone who is working in a company while meeting co-workers and being social with others. I believe in a work like this, especially during the global pandemic, which basically forces people to be with themselves and handle continuous social distancing. As personality types vary, it will be harder for others to stay isolated compared to other who may even rather enjoy time with just themselves. I read an article about being happy with yourself and enjoying being alone. I thought it was important read and as the future of this pandemic is unclear, the future of the social distancing stages it will get a mystery, people need to be prepared to be okay with just being alone every now and then. According to Thuy-Vy Nguyen, an assistant professor in the department of psychology at Durham University, who studies solitude. "It's not that solitude is always good, but it can be good" if you're open to rejecting the idea — common in the west — that time by yourself is always a negative experience you're being forced into". (The New York Times, the-benefits-of-being-alone -Article)

Being happy about being by yourself is all based on how oneself handles it and learning to enjoy it rather than trying to avoid it will have crucial effect on the persons state of mind. It is often seen in the movies or literature and news that being alone makes people depressed, sad, weird or even abandoned, but making the best out of bad situation and turning it into a positive can have huge impact on everyday ongoing daily life.

2.4 Week 2

24.03.2021

Today's goal consisted of handling all the new tasks and incidents the new week had brought. There should be couple of new store openings so that was sure to bring some interesting new issues to the table. The day started with a pile of different stores printing issues; they were all unrelated, but all the stores were using the newer system. There was issue with prints not coming out automatically, this seemed to be a problem caused by a bug found earlier and to be fixed in a later update of the system. Another problem a store had was the prints going off the grid, which means the products are unusable as the size is designed for the edges of the shelves. I started off by checking the printer parameters which shows the print size and measurements. I reset all those and changed them to the ones copied from another store where the printing worked normally. The printing still seemed to go outside of the borders. After this I found out the store was using the wrong pre-set for the prints and using the older version instead of the new one. Also, the paper was put in the printer upside down which plays a crucial role in the prints as it is precisely cut to fit all the measurements. These two changed made the prints go as wanted by the store.

Today was also time to close a lot of older tasks that had been hanging in the list for no reason. Some were from last December, I decided to dig them up and call if they were still relevant. This included some receipts that was to be deleted and removed, the problem being this edit the database. The databases information has already been soft locked as the year has passed, so making edits there could cause some serious errors. I sent this forward to see if anything can be done and is it necessary to do the edits.

Another older issue was printers set for wrong locations which needed to be updated and some new printers renamed. The connection to the stores server had to be made, assign the correct computers for the required printers and then do the wanted name changes to these newer machines. Tests were performed afterwards, everything looked as was requested.

25.03.2021

Today's goal was to answer all the calls coming our way as it is the call shift again. If there is time handling the earlier problems with stores travel card readers need to be solved as the stores are not able to sell the local travel cards at all. The problem was that the whole application would not open for the stores, there were total of 4 stores with the same problem at the same time. All the updates were correctly sent to the stores and the cashier machines booted and the program still would not open. There was a single cashier group algorithm missing, which caused the travel application to be not in use, after changing this all the stores had their travel applications working normally.

While handling the travel card issues, one call came in. A store had trouble with their new laptop not being able to connect to the store program. It sounded like a problem with permissions on the account, so it was transferred to the section one, who handles username and password management most of the times.

There has been a big issue of weird numbers appearing in a certain stores accounting file. It has been a great problem lately as if there is one issue a date with wrong number, it affects the next days as well. Today we got a call from the store where they found out they had forgotten to reset the false sales from the day they started with the new system. After removing these sales from the system, the rest should update now and hopefully solve this whole issue, it remains to be seen whether the numbers start matching in the upcoming days.

A new store opened recently, and they needed their online billing activated. This means that all the bills that are directed to the store go in an electric form, instead of physical bill. This will make the job of the sender and receiver easier and obviously save paper as well. This is easily activated by checking the billing number and business id of the sender. All of this can be found from an excel file, which is then converted to CSV (Comma separated file) and then inserted into a PowerShell ISE, which handles the checks and provides the needed changes for the store.

Today was also the deadline to setup my allocation of the work hours so I filled that in.

26.03.2021

Last day of week two, the week felt short as Monday and Tuesday were off after working the whole weekend. Today's goals again were to answer all the calls from the hotline shift and handle few tasks and incidents from my list.

The first call came nearly right away after starting the shift at 8:00, the store had just started with the new system, and they had not been taught how to print out self-register

log in tickets. I have never done this before, so I had to look for instruction how to manage it. I found out that I could not access the instructions related the issue due to authorization failure, so I was not able to instruct the caller right away. I found out some more instructions from our own guides section, but the part that I needed was broken and unreadable. I had to ask my co-worker to log in to the proper instructions page as my login details were broken or wrong. He got me the instructions and I called the store again to help them. They however had already called another emergency line and got the instructions from elsewhere. After this I made my own detailed personal notes how to handle similar incident in the future without having to browse through hundreds of guide pages just to find a broken guide.

Next agenda of the day while waiting for phone calls is to once and for all figure the printing problems that keep reappearing within certain stores, the goal is to figure the root issue that is causing them to reappear. There is a very confusing and not so well written guide and instruction word file where the issues are handled, so today was time to go through it, rewrite the confusing parts and to fix the automatic printing issues. I started investigating the printing logs in the database with SQL server queries. The queries show that most of the automatic prints got cancelled because of the error message "Print Request Line wasn't found (didn't come in time)". This means that the printable data did not yet arrive to the program when the printing was supposed to be started. This could be caused by database or network error.

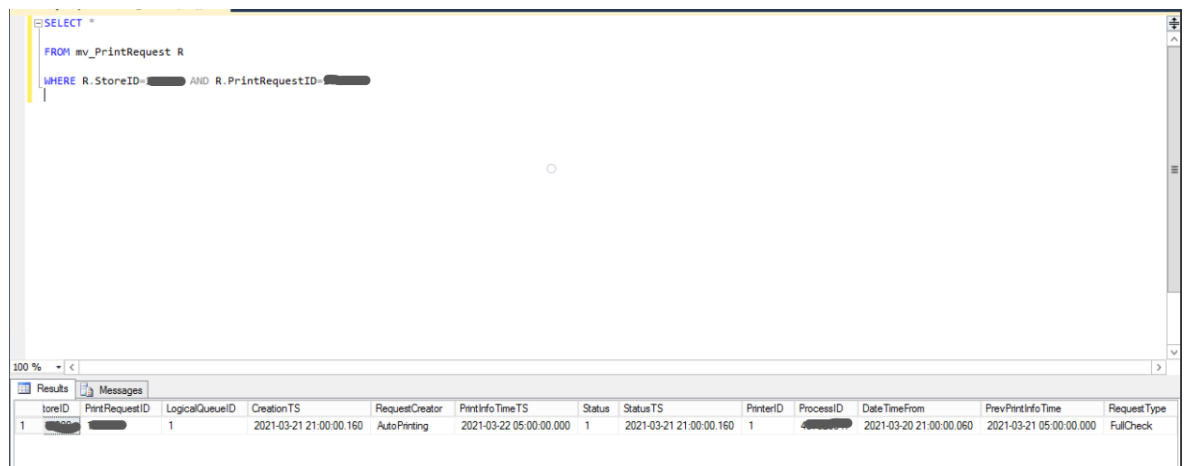


Figure 13: SQL Server search

So, looking at all the tables, it turned out the price had changed, and this should automatically print a new price ticket to the store. Looking at the history shows that the print was cancelled due to either database or network connection error.

Week analysis 2

The second week was exceptionally short because the Monday and Tuesday were days off because of weekend shift. The pace of work started fast when I started as I had some undone things that needed to be done from past week. All in all, I caught up fast and got the things done on time. The main issues at stores remained the same as earlier and many stores seem to have reoccurring issues. There were some great additions added to the notes for later use and the structure has maintained easily readable and everything can be found from the table of contents easily. Everything within the guide is just click away from there. There was both hotline and normal ticket shifts this week, and it was quite busy in both. The new hotline shifts are taking people away from ticket shifts which means that the tickets are really starting to pile up and keeping everyone busy.

I learned a lot this week in terms of using the SQL-server. Using the queries to search through the database and digging the info from the stores. This helps investigating most of the issues from the new system as all the raw data is saved in these databases. Every single store is listed there with every item sold, receipts, customer data, bonus sales and everything related to the store. If the issue can be found and solved, it will be from the database. This week also gave me more in-depth view into label issues, how to start solving them and where the problem may be. I discovered more about both issues, when automatic labels are not printing at all when they should and when there is too many labels coming out of products that are not sold in the store or simply have zero price in them. Main problem with the tickets does not print is that the stores have no idea that there has been a price change of a product and are selling the item for a wrong price. While the problem with too many labels being printed causes the store to waste time trying to figure out which labels are real, and which are not. Not to mention the fact that paper is being wasted on the labels that do not need to be printed.

Comparing the current state of the world during a global pandemic to a "normal" world really shows which companies were prepared for the worst and which ones went bankrupt. Looking at how companies like the one where I work adjusted and everyone went from working from the office to distance working from home. I started in the middle of the whole crisis so all the training that usually is done in the office for the duration of multiple weeks, consisted of two days of training, and then continued online in the form of video calls and meetings. It gives perspective how fast a person needs to integrate to the new forced conditions. It gave me much prompt and the need to self-learn a lot of the new information and techniques coming in. Having to be all by myself and call customers to help with their problems with a new program that has just been released was challenging. Comparing

this to a normal time where you could go ask from your colleagues help with difficult task or incident, and they could physically assist you and show you how it can be done. The times are truly different from 2019 and for sure will remain different and more distance work emphasized with many companies. According to a blog in BBC, Unknown questions, the global pandemic could tip the style of working into a better direction, they say “If we can move past decades of orthodoxy about 9-to-5, office-centric work, there is an opportunity to retain the best parts of office culture while freeing ourselves from bad habits and inefficient processes, from ineffective meetings to unnecessary bureaucracy. Every leader believes they can do better, and things can move faster: this is their chance.” (BBC News, Unknown Questions)

2.5 Week 3

29.03.2021

Today’s goal was to investigate more label issues as they happen to be the current pressing matter as more and more of these issues seem to appear for different stores. The day started one hour earlier than normal, at 7:00. These are the morning shifts but having the emergency phone is for the earlier morning shift who starts at 6:30, so phone answering is not required.

Started the day by browsing through the newest tasks and incidents. Nothing there that requires immediate attention so focusing on the older issues that I had on my list.

I started the day by instructing a store how to make a discount campaign. The store wanted to have a discounted soda for anyone who buys a warm meal. This was done easily by creating a group of all the warm food they were selling and adding them to a new coupon campaign. Then setting the coupon code to number 1, now every time any of those warm meals are purchased, the register would ask if there were a coupon included. If then 1 is applied, the soda price would get discount price.

Next up were some issues with item labels, which would not automatically update, even though there had been a new price update. It appeared that the store was selling these items with the 1-piece bottle code, and the item that was supposedly not updated was the 24-bottle version of the same product. This meant that the item they were selling, they just sold with 1 bottle code and added that 24 times. As the 24-bottle version of the items had not been sold once, the price does not update as the item is considered “Not active”. As the item is not active, the system ignores any update attempts on it. I contacted the store and told them to either start selling the items with a correct code or change the tracking to a singular product.

More issues about printing arrived as store tried to print their basic labels and making them to print on the same A4-paper, but instead they were printing on separate papers, wasting great amounts of paper. The issue seemed to be that the store did not put the items in a print queue, but instead print all on their own. The store had to be instructed how to properly use the print function after filling the queue.

30.03.2021

Today's goals were to answer all the calls that come to our hotline. Also checking some more label printing issues was priority on tasks and incidents while waiting for the calls. First calls were about money transfer questions. The store wanted instructions how to handle safely moving money from cashier to the safe during the day and noting it down to the system. I called them back with instructions on how to register money transfer and they managed to handle it on their own.

Next call came in about a cashier machine that would not boot up and log in, the screen was only black and there was the typical sign in, power up and change user options. First thing was to try if we boot up the machine and hopefully the cashier program would boot up normally. If not, there should be a known error message that prevents the user from logging in. The cause for this error is this unknown and under surveillance. After testing the restart, the machine still would not go forward from black screen. By applying the remote ctrl alt del command, we were able to go to the menu where we can log out the current user and log in as service user. Service user is then able to remove the user from the computer, which then prompts a new fresh install next time the computer is booted. After the restart and renewing the user account the cashier program started working as wanted. Call to the store for test and close the task.

There was a call from a store where their travel sales would not work on a cashier machine. The whole option was missing. This usually means that the parameters that activate are missing from the system. After setting up the correct parameter and setting it to a Boolean value of YES, the travel card reader popped up on the cashier and travel cards were able to be sold again.

Another call from a store with only two cash registers came up. They had tried to sell a big number of items and the register had just completely frozen. Checking the logs of the computer and what had happened showed that the database of the server had filled up and could not handle the sheer volume any longer. Checking the past reboots of the machine showed that the whole computer had not been booted for over a week. The machines are supposed to be restarted no longer than five days apart. This caused the crash and made the database give out. The store claimed that they rebooted the machine but looking at the recent logfiles we can see that only reboot was the one where they had to

press the power button. The store was then instructed to properly restart the computer to release the memory and thus making the computer run normally.

31.03.2021

Today's goal was to get more info about the earlier printing problems and hopefully to find the main reason the errors come up while automatic printing is in progress.

I started by calling the store that had been struggling with the automatic printing not working for few weeks now and gave them instructions how to manually print the unprinted new price labels. They had earlier been using a very inconvenient way of doing so. There is a way to see the list of all the prints that had gone forward with the error status and re-print them again.

Next task was to create quick keys for a store, so they can easily access items and products that are being sold commonly. The process can be done through the server computer where the quick key is being made, then the products that are wanted there will be scanned to the database and saved. After this the button will be applied to the cashier machines wanted, while possibly being edited separately for a self-register. Call to the store so they add the product wanted and run a few tests to make sure it works as intended.

Another store had their machine installed which handles all the scratch and win coupons as well as lottery tickets. They had been physically installed to the store already, and only thing that was left was to set the parameters correct so the machines can properly talk with each other. The parameters are set by putting the cashier code into the system and activating the game Boolean as YES.

While investigating the problems with automatic printing labels, it was found out that some of the labels that were supposed to print were had quantity set to them. The thought was that some labels would not have been printed because the amounts were set to zero. This had been done earlier this year to the store as a database addition so they would not get any extra zero price labels from the products they were not selling. The fix for this was to set number of labels for products that had not been sold for more than 13 months ago to zero. This could have potentially been the cause for automatic printing not working, but now it appeared this was not the case, the problem persists and needs to be investigated more. The store knows how to manually print the tickets though.

Another older store issue appeared where they had been changing the tracking of products to zero accidentally. This meant that any movement on these products like sales or restocking would not be tracked. This was easily fixed with a simple SQL-command where all the product categories were selected from a certain column and changed from 0 to 1. This was done by first selecting all the products, checking their quantity and then updating the correct column.

01.04.2021

Today's goal was to handle phone answering duty as I was on the hotline shift again. Today was first of April, which means that the easter holiday is starting and stores have big number of new sales coming up. In addition, the beginning of the month usually brings up new billing issues.

The day started with multitude of billing issues as the calls started coming. The bills were not sent, the details were wrong, there was error in the sending process or some other billing related issue. I helped the stores on the phone or sent them instructions via email. The billing is handled by a different system than ours, so want can't directly see anything billing related ourselves.

Another store called and asked for help in printing campaign posters. They had a problem with the prints coming individually instead of in a group. The instructions were given to a store to go through the campaign page, selecting all daily ongoing campaigns and printing them out all in one queue.

An issue came up in the morning as well where documents and important files could not be handed to the customers. The cause was a network error in the server. Multiple calls came from the same subject, but only solution was to wait it out so the issue can be fixed at the source.

Most of the day was busy answering calls about label issues, package problems and general everyday issues that newly opened stores had with the new system.

Week analysis 3

The end of the week was somewhat hectic as easter holidays just started and there was a big number of shoppers. Transition to new month also brings issues with the billing as sometimes the bills will not go through due to error in the excel files. This week had the same printing issues that have been present for many weeks now, but there has been some breakthrough in investigating the root problems of these and as that gets solved, the rest of printing issues should also disappear in the same act. There were few new stores starting this week and that caused some calls into the hotline phone. Most of the calls were from stores starting recently who had some issues with the start-up and needed help, but some of the older stores still using the older systems also called the line. There is an ongoing instruction to these stores letting them know to use the first choice on the phone call instead of second one, which is reserved for recently started stores with their questions. This issue remains to take time from the stores that are starting of the with the new system and are in need of actual help as soon as possible. Sometimes the lines can

be busy with stores that are still using the old system and should not call the second option at all, we try to move these calls to the first option as they know the older system faster all in all.

This week I learned more thoroughly about the newer POS-system, and how to handle the printing in there. I learned to instruct customers about their issues with campaign making and how bills are setup and handled. Learning all this will make the problems that come through the phonenumber faster handled and gives more time for other assignments. The customers will be much happier after the call as the problem was solved faster and they didn't have to wait for me to call them back, but instead solve the issue there in the first call. The main goal is to get better with the new system as it will eventually replace the old one has more priority than focusing on the older issues but also learning the basics of the older version will come along as there still is some incidents regarding the new system coming up every day.

I encountered some issues with SQL Server this week as I was not entirely sure which tables to use as the list is massive.

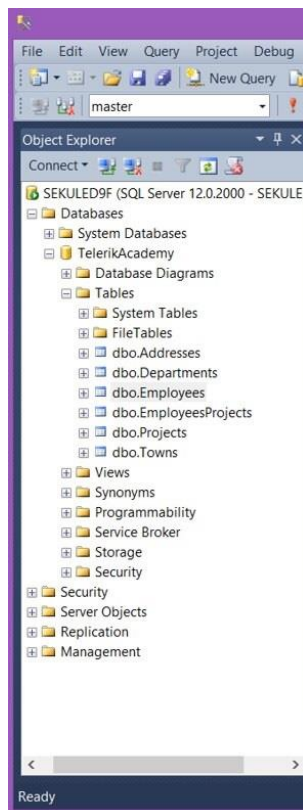


Figure 14: SQL Server Databases

Following the SQL Server tutorial at their website (<https://www.sqlservertutorial.net/>), I was able to find out that any queries that I make on the top of the page affects the tables

that I am using and makes the search for the correct area from the thousands of different sections not needed. The queries will directly look for the table that needs to be used.

More thorough instructions were found on (<https://knowledge.autodesk.com/>), which stated the following: "Important: Before executing any queries on an Advance Steel database, make sure you create backup copies of the databases that will be modified, by adding them in a backup folder in a desired location on the disk.

When editing Advance Steel databases, some actions may be repetitive. You may need to perform identical or similar steps for multiple database tables. When you use SQL Server Management Studio to edit Advance Steel databases, this is achieved by using queries."

2.6 Week 4

06.04.2021

Today's goal was to finalize the earlier printing issue and find a final fix for it, the store had already contacted our service multiple times and has been starting to get anxious for the solution, so this needs to get solved.

The day started with an activation task of online billing for an old store. They had changed from paper bills to online billing system to be more environmentally friendly and the automation of the whole process makes the monthly billing much easier. The process is simple as stated earlier. A PowerShell script needs to be run which checks all the used portions in the database and then changed the ones needed like activation of online billing and the bank number. It then proceeds to do all the checks that the process can fully complete, and the recipient of the bill has their information correct as well.

After doing some research on the printing issue, there was a found that all the stores started having the issue on the same day of 17.03.2021. This seemed to relate to the fact that all these stores extra label values had been changed to 0 from 1. After more thorough research of the log files, it was clear that if there was any product in the list of upcoming automatic prints, it would corrupt the whole list of new items. The system does not allow a value to be zero, it need to either exist or not. In a Boolean term True or False. We changed all the earlier changed zero values to one, and now just must wait if automatic label printing will start working as intended again, next prints should come 07.04.2021.

Another store had an issue with their reports not showing all the information that is needed and lacking the information instead. The store was then informed that the reports can be expanded by clicking a tiny plus-sign next to the values, which then expands the areas and columns while providing the needed more specific information.

After previous tasks, another incident needed attention. Their game printers were not printing the lottery tickets at cashier number one. First checks that needed to be done

were whether the game protocols were correctly placed. This means that the machine is accepting the connection from the printer, this sometimes causes errors if the protocols are not in order. However, the protocols looked as they should and prints still didn't come out. The machines were also booted as supposed to, so no problems there. Last check was whether the machine was assigned to a correct virtual USB-port. The machine was indeed in the wrong port, and by dropping an update file remotely to the computer changed the host computers directory files, which then applied the correct port and removed the false one.

07.04.2021

Today's goal was to make sure the fix for the label printing issues worked and there are no more issues in that area. It was an evening shift so only one person working and handling the emergency phone. Evening shift is usually from 14:00 until 22.00. Main priority will be answering any calls that might come.

First problem via the phone came from a big supermarket, where the machine that controls all the other self-registers was so slow that it was unusable. First thing to try was to take remote connection to the machine and try to reboot it. After rebooting the same problem appeared and the text entered in the machine appeared with at least 1minute delay. Calibrating the monitor was next step as it is controlled via touch screen. After calibration, the program was still unusable and there was no improvement. After calling for help from a colleague who was already off duty I was recommended to try and boot all the stores self-register cashier machines. This was challenging as the store was still open and had customers, so the machines had to be rebooted one by one. After all the boots the machine accepted password, which was improvement already, but after the password the machine went back to the slow unusable state. Nothing more to be done here for today, possibly a gig for the physical maintenance.

Large number of stores had issues with transportation ticket selling machines today, as they had been installed at the same time as the new system upgrade. This causes issues as the program should be installed the next week from the start, but the stores demanded to have them at the same time. This caused some of the protocols to be missing and the application not appearing on the screen. After changing the protocols to the ones needed, the applications started working as intended. A lot of more issues with the travel card readers came up whole evening.

There was another incident where a stores automatic notification system sent out a message that there was possibly a double pay for the customer. These messages come automatically when cashier transaction ends abnormally. Here we need to check the receipt of the transaction and send it forward for inspection where it can be compared to the credit

transfer. Usually, it comes back as clean and normal transaction, but if it was double it needs to be dealt with on a later date.

08.04.2021

Today's goal was to handle all the possible tasks from my list that I had to completely clean the slate. However, as I started the day, I noticed that approximately ten new incidents had been moved to me, so the daily task was just to clean up those and see how many there is left by the end of the day.

Few new members started working earlier last month so they needed to be shown few things about the tasks.

First thing to show was how to apply a webstore option for a new starting store. This is done by running PowerShell script that updates the database for the store in the older system, and simply changing the option from the SCE-menu with a new system. Both systems need a server reset after for the changes to take effect, but this does not intervene with the stores daily tasks.

There were some problems with handling daily accounting for a store. They had customer pay with a gift card, but accidentally registered the gift card with a wrong code, this led to the amount show as minus in the reports. They tried to change the gift card to a correct one, but as a result of this, the money in the safe somehow was lessened by the exact amount. The store was confused about this transaction, but as the money never actually left the safe, the store was then instructed to virtually fake transfer the missing amount to the safe to even the numbers. Here we had an amount that was not actually ever removed, put back into the safe as if nothing happened. The store only needs to explain this transaction and why it happened to the people behind accounting reports during the next month.

Yesterday evening shifts issue with the possible double pay was solved today as the answers arrived. Comparing the log files that were sent to our own log files, we could see that no double pay went through, and the only issue was that card reader did not communicate properly with the cashier machine and this caused the phantom double pay. The task was then closed and information about normal transaction was sent forward.

Another store had opened a task that was lost for a reason or another and was dated back in last year of 2020. The store had issue with their receipts not showing up in the receipt archives. The simple fix for this was to use the newer version of the receipt archives which saves the data further back and is way more stable. After instructing the store to use the new archives, they were able to find all the missing receipts from a couple months back and get the receipts printed they wanted.

09.04.2021

Today's goal was to handle the call shift and answer all the calls while solving all the issues customers might have during it. As the day was Friday and weekend was starting the stores were supposedly busy even though the covid restrictions are still ongoing and people are not supposed to go out that much. The stores starting out need the most help but sometimes the lines can be full because other stores are calling as well.

The first issues of the day were stores accounting problem; they had a missing amount of 60 euros after the computer had finished the cash calculations. This meant that the program calculated 60 more euros in cash to the end of the day cash box than there was, this led to the cashier to make the counting again and change the number to 60 euros less. This then meant that the store had somehow lost the 60 euros and the job was to figure out where this amount went. They had sold an item for exact amount of 60 euros and the customer had paid with a gift card. The store was not sure which category to put this card in, so they chose "Other payment" category. This raised suspicions as the amount was exactly the one which was missing. However, after more thorough checks, it turned out that the cash amount and the other payment category had both filled in separate places, which meant that the 60-euro gift card could not be the missing amount, and therefore it could be missing for real. Checking this from the SQL Server showed that the amounts were calculated in different sections. The missing money was not found today, but tests were run were we tested whether there is an error in the system which does not show the cash amount properly and waiting for the results to come next week.

The same store informed us also with two other issues they had with the system regarding gift cards and the amount safe can show and where to find it, these will be informed at the same time when the missing money has been found.

Today was supposed to be a group talk where we discuss different incidents and tasks and share info with each other, but that was cancelled and moved to next week. Would have been useful to hear some of these.

There was plenty of call during the day, but most of the day went checking the database about the missing euros and answering basic questions regarding the new system.

Teaching how to print, handle accounting, make new labels, print those labels and how to move cash out of the cash box to the safe in the middle of the day.

Week analysis 4

This week's main challenge was the printing issues which prevented labels from either printing, the sizes were wrong, prints went to the wrong location or automatic label printing issues. A lot of the issues from last week remained, but many of the incidents from the list were solved as well. No major or critically damaging issues were found this week, which would require stores to close their sales or shut down the store. All the reoccurring incidents were minor inconveniences that had not needed to be prioritized over other incidents. The notes I am taking down and making a clear guide for past incidents is progressing with speed and will soon start speeding up incident solving as well. I have made great improvements there and still managed to keep it easy to read and follow for any else who wants to use it. I have been using a lot of pictures to easily explain the actions that needs to be done and used step by step explanation to go thought everything that needs to be shared.

I learned to sort my incidents and tasks in the order where the most time sensitive ones are handled first this week. As this week showed, sometimes the day just starts and there are multiple new incidents waiting in your queue and it is crucial that you pick the ones that need to be taken care of first out of the way to prevent unnecessary waiting time for the customers that need help fast. This could mean that a store only has one cashier machine and cannot operate at all if that one has a problem with it. Also, the discounts that sometimes last for a week or even less must be handled fast so the discounts start working while they are still active on the store.

I think that making clear sense of what you are doing for others in a form that it's easily accessible by others than yourself is as important in any work, but especially so in let's say coding. This is what www.cd.utah.edu has to say about the importance of commenting your code, and I believe it fits for any sort of job where information is to be shared: "All programs should be commented in such a manner as to easily describe (in English) the purpose of the code and any algorithms used to accomplish the purpose. A user should be able to utilize a previously written program (or function) without ever having to look at the code, simply by reading the comments.

Commenting is the "art" of describing what your program is going to do in "high level" English statements. Commenting is best done before actually writing the code for your program.

Comments are specially marked lines of text in the program that are not evaluated. There are usually two syntactic ways to comment. The first is called a single line comment and, as implied, only applies to a single line in the "source code" (the program). The second is

called a Block comment and refers usually refers to a paragraph of text. A block comment has a start symbol and an end symbol and everything between is ignored by the computer.”

2.7 Week 5

12.04.2021

Today's goal was to have a last week's meeting together with others and discuss the matters and issues from past week and easter. There was some incidents and tasks from last week too which needed to be handled start of this week, so they were goal all the same. Later this week I'll do some tutoring on the new employers and show them how to activate webstore for the stores when it's given as a task, the training for this will probably happen on Tuesday or Wednesday.

The day started off with some tasks from last week that were left undone. There were few issues with the lottery machines, so they had to be checked whether the parameters were up to code and the cashier machines were accepting the game xml-files. After changing the parameters and switching the virtual USB-ports to the ones required, the printers started working and printing the required lottery tickets.

Another pressing matter of the morning seemed to be that stores were losing connection to their virtual keyboards, that should appear when giving away post service parcels or letters of high importance, a passport as an example. The virtual keyboard wouldn't appear when it should which made it impossible to fill out the recipient's information. Partial fix for this was to take remote connection to their cashier machine and input the information from our actual computers that's required for handing the passports. This will need a further fix and we are investigating the root cause for it, until it's found the partial fix will have to do. I picked up a few older incidents from the list as they've been sitting there for multiple months and started calling if the issues were still active and needed solving. One of these were when a store had sold multiple items and "accidentally" put a bingo card as a payment method. This means that no actual money moved anywhere from the purchases. The way bingo card payment works, is the cashier physically must select the payment method and manually set the amount that is wished to be used, there is no room for error here and not a person can do this accidentally. This was explained to the store and said that the money could not be retrieved anymore as the transactions were already done and there was no sign of the customer anymore.

Another quite interesting situation had happened where a store had their own offer for an item and the store group had their own, these two offers collided and the price for the item

went as low as -110%. This meant that the customer received money for buying this item. This was fast fixed thought, but a couple customers received money plus the product in the past. I called the store and explained how this kind of excessive discount was possible and closed the incident.

13.04.2021

Today's goal was to get all the remaining gigs done, excluding the two new stores opening that are date sensitive and can only be done on 19th of April.

As I started the day at 7 am, I realized I'm not capable of logging into any of my accounts, which meant that the VPN was unavailable to me. By me not being able to access VPN, means I'm unable to contact the IT-Company servers as the connection would not be secure. All this happened because I forgot to renew my password before it expired, which was on Monday 12th of April. The password changing process is painful at best, as it resets all the passwords you have saved for the autologin of your accounts across all the applications and required you to set them again multiple times over and over. This was the reason the password change was delayed until the last day. However, the Monday was early wakeup and busy day all in all, so the password change was forgotten during the day. Only option was to call the other IT help line, which happens to be in India, where a young woman speaking English helped me to reset my password. Approximately 10 minutes after the call was one, I was sent my password via Skype and was able to login with the new password.

The day was filled with discount problems and errors for some reason. Many stores had sent pictures of their receipts and showed that there were not enough manual discounts that was given. Let's say a product costs 6 euros, a 50% discount was given, and the discount only totalled 2,7 euros. This just meant that there was another discount at play which was given first. After this new discounted price, the 50% amount was reduced and this meant that the ending discount was correct, the 2,7 euros.

Another store had two issues with their money, where they had transported money from the registers to the safe, and claimed they had marked everything up to code, but the money was still missing from the reports. After checking the logs of the transfers, we found out that the money that had been taken out of the cashier register was indeed written down, but the part where they put the money in the safe was not. This meant that the system thought that the money was gone, this was easily fixed by editing the database of the safe registry and adding the missing amount there after confirming that it was still there.

Today I heard that I have 10 days of holidays gathered and should decide whether to even keep them or just take them as holiday cash, seeing that the corona situation is still ongoing issue, it might just be smarter to take the pay instead of days.

Later during the day there came few simple account reset gigs which I took, they meant that I had to reset the password of the employees as they were not able to login to the system. One had problem logging into the account from their own laptop from home, so I helped them to set up a multifactor authenticator for their account.

14.04.2021

Today's goal was to answer the hotline calls that came during the morning and handle all the issues that the stores had and needed help with. All the time while waiting for the calls was reserved for solving the gigs in my list from past week and previously opened ones. Some older gigs had been open since January, so there were some minor issues that did not need immediate solutions. These often mean some small printing errors or label issues.

First calls came in early, and a store had printing issues, where the handheld machine would not print the labels in the correct printer, and it had to be changed. I had to take remote connection to the computer, make my way into printer settings folder. At the folder there is printers.ini file, which controls where to handheld machine prints are going automatically. By accessing this file as administrator, I was able to make edits via notepad to the file, which then changed the print destinations to the correct ones.

Another call came nearly right after solving the printer issues and a store had problems with cash missing from the cashier machine calculations. It turned out a store had multiple cash take outs during the weekend, where a customer can take cash from the register which is then deducted from their bank account. The cash leaves the cashier machine, and the same amount is transferred to the stores bank account. This sometimes causes errors in the registering the cash as it physically leaves the register. I called the store and explained them the situation. After this I sent all the receipts to the store so they can compare them against the report numbers. They can also compare the amounts from the receipts with a cash checking tool that shows that the total amount of cash earned during the day matches the database sum.

There was some time between calls, which meant that I was able to handle some older gigs, few of them already had been solved by time, which meant they could be closed and now they are finally off the list.

Another older problem was a store having label printing issues, which meant that they were not able to print proper sized labels. The labels printed out too large and would not fit the price tag paper. I looked at the file that controls the sizes of the price labels, and

everything looked as it should, and yet the labels still did not print as the size they were supposed to. I transferred this issue to field maintenance who then can check if there were some physical issues with the printer, which prevents the correct size or another size setting which overrides our set size.

We had a long 1,5-hour teams meeting, where we discussed what needs to be done when a store manager changes in a store and all the information needs to be changed according to the new owner's needs. This usually involves changing the receipt information, banking details, general names and automatic billing information. The process seems to take a long time and it usually needs to be done before the store opens, between 6am and 8am. In my case however the store I am updating on 19th of April is under construction, so I have all day to finish my store changes. That is very helpful as it is the first time, I must do store owner change.

15.04.2021

Today the goal was to add all the information from past tasks to my word file where I make my own guide and build it from solutions about older issues. Plan is to handle few newer incidents today and focus on writing the guide, while adding precise pictures and information, so anyone can understand it and know what to do.

I wrote the guide nearly all day and gathered a lot of material from my solutions and took ideas from other guides that were scattered all over. This way all the information can be found from a single word file which makes looking for solutions faster and more efficient. I also solved few incidents, but they were small fixes in printing mainly. Stores had problems getting discount flyers printer, and the flyers would print out without any price. I went to look at the settings of the prints and noticed that no discount flyer was selected, but normal price flyer instead. Changing this made the flyers print with the correct price and size.

16.04.2021

Today's tasks were to have another meeting regarding the store owner changes and to handle campaign issues. I took multiple campaign issues earlier this week and planned to finish them all by the end of this week. It is common that the campaign issues have similar solutions, so taking all of them at once is a neat way to get many of them done at the same time.

First campaign problem was a campaign that would not accept the correct number of products, and then change the price to the desired amount. This discount campaign was

straight from the high up company, which usually means that their end has the problem if one exists. The company discount amount overwrites the one set by the store as it is higher on the hierarchy level. This means that the store's own campaign cannot be changed by us or the store and is maintained by another system completely. Here the change needs to go straight to that system, and the only way to do this is via email. I explained the changes that had to be done, sent the email and the problem was fixed. Another discount campaign related issue came from a store trying to make a new campaign to five months into the future. This is not possible as the maximum number of days into the future that can be put is 90 days, if this is exceeded then the campaign cannot be published. There is nothing that can be done here so I called the store and explained while telling them to publish the campaign later and closer to the initial campaign start date.

The second team's meeting regarding the store manager changes took place today, and it lasted for one hour. We managed to build a clear checklist and instructions on how to do all the changes during the day when the change happens and all the checks that need to be done with the old and new managers to see that the information provided in the emails matches. The checks are usually done one week before the manager change so everything will be ready on the day of the change. The meeting was useful, and we got a lot of work done on the guide as well. Everything should be ready for the next week Monday's change.

I called the new and old store managers, checked the information with them and after I saw that all matched, I could put the gig on hold until Monday.

Week 5 analysis

Many challenging similar issues from earlier weeks regarding printing and label issues. The root cause of these problems is yet to be solved so the issues keep reappearing from store to store. Also, things learned this week were training of the newer workers and teaching them the task of setting a webstore to a shop. The training must be done online due to the COVID restrictions and can cause some challenges in the learning of what is required in the job. Anyhow we are all working together and making sure that everyone learns the skills needed to handle the everyday issues together as a team. By training others to solve the issues that keep reappearing, will speed up the process of getting the tasks done.

The tools for remote working keep improving on a daily basis luckily and it is easier and easier to share knowledge through the web. Showing a new person how to do a task by sharing your screen, which you can also record for later viewing can really help them understand the whole process. The usual tools such as Skype, Teams and Zoom are

used and so far, Teams seems to be the most user friendly for my purpose. The most common tools such as laptop, headphones and work phone were provided when the work started and thus communication is simple and effortless.

Some issues this week also involving VPN appeared, which caused me not to be able to login at all. Without VPN connection, none of the programs or services will not work as the secure connection is required to contact the official servers from home. When working from office the VPN is not needed as the network is already secure and that of the IT-Company's.

Sometimes the issues might appear when the password has expired and login becomes unavailable, but every now and then also the VPN service can be completely down or under updates, which then causes issues with the services being used.

This week a lot of information had to be found from the notes and I had to browse through a lot of instructions to get couple of the issues solved and this helped me to get better at looking for information. By knowing where to search the answers for helps me solve tasks quicker and more efficiently. By being more efficient at solving the issues, I can save my own and the customers valuable time as they won't have to wait for nothing and in the extreme case of a store having only one cashier machine, the store will not have to be closed for a certain period. The one cashier machine stores are problematic all in all as they will go completely black if that one machine has any kind of error that prevents it from being able to process purchases. This can be more common than people can think, and any kind of small error could cause these issues to appear, this is why we recommend stores to get at least two cashier machines, or at least one cashier machine and one self-checking machine.

The effectiviology.com website states this about the importance of helping and teaching others: "The protégé effect is a psychological phenomenon where teaching, pretending to teach, or preparing to teach information to others helps a person learn that information. For example, a student who is studying for an exam could benefit from the protégé effect and improve their understanding of the relevant material, by teaching that material to their peers.

Because of its beneficial influence, the protégé effect can be a useful tool in a variety of situations."

2.8 Week 6

19.04

Today's main task was to handle the shopkeeper change in one of the stores, this means making all the name changes, receipt changes, banking information edits and anything else that is supposed to change in a store with the ongoing shopkeeper switch. After the switch all the open incidents and tasks I might have should be dealt with as the time allows. Usually, the change needs to be done before the store opens, which could mean anywhere from 6 am to 8 am., but as the store is under construction, this was not needed with this specific store.

The morning started rough as the store's server was offline, which means none of the changes can be applied. First two hours of the day that I was supposed to handle the shopkeeper change I had to wait to the server to become only while handling few incident calls that were left from last week. The server finally came online around 10 am and I managed to start going through the checklist of the required actions. I changed the receipt texts of the store, made a name change for the whole store in all the relevant fields and checked that there were no older bills left unpaid, that would transfer to the new shopkeeper. After doing those, I had to start table recreation process, which can take up to one hour. Just as I started, a technician of the store called, and said the stores server needs to be rebooted to apply changes. This interrupted the table recreation and the process got stuck in an error. After the updates were finished by the technicians, I got to continue the work and had to start the table recreation from the start. It took about 25 minutes after this and the whole process was done. Other issues surfaced when I was following the instructions and was supposed to run a script to make changes in a database that was out of our systems reach. PowerShell would not accept the script's file to be run and caused an error again. It was not mentioned in the instructions that the script was supposed to be run with CMD and not PowerShell, where we usually run all the scripts and type the commands. After figuring this out, I had to change the file name with a single character and the CMD-command applied the changes successfully. After all the changes were completed, the only thing left was to activate automatic online payments for the store, this means that the bills for the customers would go automatically without using paper billing. The activation went smooth and finished today's shopkeeper change task. 20.04 I will be doing the checks with the shopkeeper so that everything went as expected and all the information is correct as the changes will kick in after the night.

After the main task of the day, it was time for some other incidents from the list, first one was where store had accidentally sent a money safety bag from safe to the bank according to the system, but in reality no money was transferred. A simple fix for this was to

recalculate the same bags value and reset it to zero. This meant that zero value bag was supposedly sent, and the money remained where it belonged.

Second issue that was directed to me was two separate stores had their sold item numbers mixed up, this is usually caused by an loss of electricity or some error in the system. I ran the numbers and products again through the program and checked that the amounts matched with those of in the database. The new numbers seemed correct so I could inform the stores that no data was lost.

20.04

The day begun hectic as there was a total of 150 incidents in our queue, the number usually being somewhere between 20 and 70, this amount was a lot and today's goal was to take as many tasks from the list and complete them as possible.

As I started the day, I checked the list through thoroughly and took all the gigs I knew I was able to finish fast or knew the solution to. I also tried to take some of the ones from the opposite end of the date bracket, because they are commonly very unpopular due to people not wanting to contact persons who might have been waiting for a long time. I managed to take about 25 new gigs to my own queue.

I started off two incidents where money was missing from the calculations of the computer against the calculations of the person who works the cashier. While checking the receipts I noticed there was a large amount of withdraws from the cashier machine that day, this usually means that the customers lift some money from the store with their cards. This sometimes messes up the system as it puts the cash that was withdrawn into card sales and this can cause errors in the reports.

Another issue a store had was their weekend sales, a total of the sales they had calculated themselves was about 60 euros more than the machine had counted. Looking at the receipts it seemed like they had not counted one money withdraw a customer had and therefore this amount was missing from the counts. I told the store to add this to the calculations as the money was there and the numbers matched as they were supposed to.

Some more errors about work shifts were found from a particular store and they were not able to correct them manually afterwards. It turned out the person who was trying to correct the numbers did not have proper permissions that they needed, so I applied the permissions, and the correct changes were able to be made.

Another task opened where store wanted all their automatic prints for labels off, this simply meant that a parameter handling the automatic printers had to have its time far off. This meant that I changed the time range to 20.4.2021 – 20.4.2121. This means that the labels will not be printed again for 100 years.

Rest of the day was only simple fixes that stores needed like rebooting a server to fix slowness, getting a pdf print file of a bill that was already sent and slowness of cashier machines that required server and other computers of the store reboot.

21.04.2021

Today's shift was 7 am shift, which is the second morning shift. The first one being 6:30 shift, which also takes the emergency contact phone. Today's goal is to take all the report gigs that may appear as these are for the person who is working the 7 am shift.

Few stores had errors in their overnight reports, so the day started off handling these. First store had their sales numbers much lower than usual compared to last week's sales. They were missing about half of their sales figures, so that told already something was wrong with the reports. After going through all the reports, I copied all the correctly handled items that are in an XML-file and saved them to temp folder in C-drive. This is done so the older numbers are safe in case the new files overwrite the old ones. After this I took RPR-connection to the store and ran so called anti reports to the system. This removes all the earlier data, so all the report items reset back to zero. After this was handled, I ran the report tool again and made sure all the numbers looked correct. After all the checks passed, I contacted the store and informed that all the numbers matched last week's numbers now and they did not have to do anything.

Another store had a problem with their customers billing. It showed that the customers had paid their bills, but they were unable to use their account to purchase more even after handling the payment. It turned out the account was set so that the customer has to wait until the end of the month to start purchasing again, so currently the account was in a state where purchasing is not available.

An issue appeared at the store where they could not set a price on the newly opened product, even if they set a price for the item, the price would just print as a zero. I went to check how the product was handled in the system and it showed the correct price as it was supposed to be. Sometimes the price information does not update if the server machine is not rebooted for a long time, so I tried rebooting the machine with a distance connection, which updated the price information. This updated the price to the system and correct priced labels and posters were able to be printed.

22.04.2021

Today was a call shift so the goal was to help all the customer who needed assistance with their issues, and while the calls are not arriving, work on the notes to improve future incident resolve rate.

First calls came about customers POS-account. They could not log into the system at all and needed help. I first checked that they indeed had their details in the correct store and made sure all the required permissions were set as active. Everything seemed to be in order so I reset their password so they could try logging in again. The login was still not available, and it turned out they had not set up their two-factor authentication. This has to be activated to the users' phone which will then setup the more secure login. I helped the customer to set this up, secure everything needed and tested the login. Everything worked as expected after this was set up and the user was able to login.

Soon after solving the first case about user accounts, another call came which stated they had problems logging out of the system. This was problematic to the store as the store manager used the account and after usage the account was still online so everyone who came to the computer could use the same login details. Obviously not everyone is supposed to have all the permissions as the store manager, so I helped the caller to remove cookies from the computer, clear browser cache and setup a private browsing state which does not save any passwords or credentials when logging in to services. After the first calls it quieted down, and I was able to work on my notes. It starting to build up nicely and has sped up multiple incidents already. Some of the instructions and guides available for us are really outdated and/or very confusing, so rebuilding them in one place where they can be easily accessed is going to save time in the future even more. The notes are closing in 5000 words, and everything is carefully organized based on the old and new system. I try to keep the explanations simple and effective for all the readers not only the writer. I am also using a lot of explaining pictures which helps readers to find the things that need to be changed more easily.

23.04.2021

Today was start of a weekend evening shift, the shift started at 2 pm and ends at 10 pm. From 5pm I will be working alone and handling all the calls that come to the emergency phone.

Store had accidentally ended a self-register machines sale to cash, which is technically impossible, because all the transactions will happen with a card. It happened because a customer purchased an item that was valued less, than the bottle return receipt they had. This led to the customer getting more money back than they paid, which should be handled in a normal register, not self-check-in. I called the store to cancel the transaction and redo it in a normal register which then recreated the transaction in a correct cashier machine.

Earlier multiple stores had problems with their travel card readers not working, most of them were fixed that week, but one store had this issue again. I simply went to check how

was the parameters set for the store and they were missing the parameter that allows the application to communicate with the computer, which was the reason the application did not appear before. After changing the parameter to YES, the application worked as intended and the store was happy with the result.

Another store had problem getting receipts from 2020, so I just instructed them to the POS-system and showed how to get the receipts from that time.

Stores have a reward system where customers earn reward money each month to be spend on the store, based on how much they have spent the earlier month. A store had problem with the reward money as it disappeared from customers account after they had to refund the customer money from a purchase. The money was returned but the reward money would not appear back on the card. After looking at the logs about the payment I confirmed that the money had not left the account at all and was still there. However, there is a one day duration where the customer is not able to touch that money, so it looked like the money was gone. This is to avoid frauds or errors in handling the reward money.

24.04.2021

Today was Saturday evening shift, which is from 11 am until 7 pm. Additionally I am required to answer emergency phone until 11 pm and get back to my computer within 30 minutes if the emergency phone rings. Although it is rare that this phone rings after 7 pm as it is costly for the stores.

I started the day with missing reports, two different stores had their sales reports missing product, so I looked and compared to them to past Saturday sales. The sales were missing approximately half of the number, so I ran the negative amounts to the system, ran the reports again and the numbers looked right. This worked for both stores that had issues. Another store had issue with a wrong username error, they tried to login to the system, but the same error kept popping up where the password was incorrect. I checked the database, and it looked the details for the user were indeed correct. I reset the password and checked it with the store, and they were able to change their password again which let them in the system.

Later during the afternoon more incidents of missing items from reports appeared so I checked those again, sent new ones and called the store.

There was an issue with a store not being able to see personal sales per person in their reports. After checking the report parameters, it showed that the store had chosen to report sale based on the cashier machine number, instead of personal sales. By changing this the next reports should cover more precise sales numbers for each person.

25.04.2021

Sunday evening shift starts at 2 pm and ends at 10 pm, today's goal was to finish most of the incidents that were opened last week and any of the ones needing action before the week ends. Plan was to try to call some customers about older incidents if they answer, which is not always the case during weekend, Sunday especially.

Starting the day off with a printing error that had been occurring for a store, the prints were not printing from the correct printer and the printer locations needed to be reset. I removed all the locations from the printers and set them again for the ones that the store wanted. After setting the printed, I did test prints on the products they were printing the labels of, and everything worked as intended.

Yet another store wanted to have their files secured with a password. I connected to their desktop remotely and set a simple password lock on the folders that they wanted, which prompts for the set password every time the folders want to be opened. The problem with this is, if someone forgets the password, there is no way of recovering the data and it will be lost if the password is forgotten. I warned the store about this, and as they still wanted to go with it, I made the password for the folders.

Few stores were noticing a slowdown on the server machines, but after looking, the logs showed no errors within them. The error log files usually can give somewhat good clue what is slowing down or wearing down the system. This time however, there was nothing going wrong there. Still, everything the store tried to handle or change, the requests kept timing out. After starting to figure out the server issues, some more cashier machine slow-downs also started appearing, where cashier machines would just not proceed after a certain point and just freeze in the middle of the action or transaction. It started looking that there were some problems with the main server that caused the slowdown, so I decided to let these incidents sit for a while and see if any more information gets out.

Another store had their products allergy information wrong, and it showed that a product was gluten free, when it was not. I sent a message forward about this so the server handling the product information would be updated with the correct information. This same database is pushing the product information like allergy information, prices and origin country to the electric prize labels shown around the store.

A store had a beer that had their name incorrect and requested it to be changed. This can be done by signing in through the root store, which sets the default values for all the other stores. By changing the name information of the beer here, will also change it for the store. I changed the name, checked it with the store and everything was as they wanted.

Last issue of the day was a person who was on the reports of the store on the days he was not even working there. This meant that the person kept appearing on the reports even when it was his day off. I checked how the reports work and it turned out, the person will get added to the reports even if they only had a minor thing to do with the shift at any day. Like starting a receipt earlier and someone else finishes it, and the person will still get placed in the reports. I called this to the store and explained why the names keeps appearing for the people not even working on that day.

Week 6 analysis

This week was my first shopkeeper change assignment, which is one of the bigger ones as it requires a lot of changes in the databases and calling back and forth with both the old and new owners. There came some unexpected issues from the servers being forced to shut down, but luckily this time the while process had no time limit as the store was under construction until next month. Usually, the scripts and changed must be run before the store opens, which means before seven. Other than that, the week went normal with mostly 8 am till 4 pm shifts with some call shifts included. On top of this, the weekend was busy as I worked evening shifts there, there were not too many calls or issues I could not handle on my own and I was able to work on my own notes for the future.

The stores mainly had the same issues as before with unnecessary labels printing during mornings and price labels being incorrect in general. It seems that stores have the common problem of dealing with printing the labels and reports with the new system as most of the printing issues came from the newer stores.

The past week mainly taught me to handle the older system side of shopkeeper change, as it requires somewhat more work than a newer system would as most of the function that needs changing in can be done straight from the one system. Also, the stores that still use the older system are disappearing and within few years there should only be few left that still use the older system. We are currently working multiple stores a week to get their systems updated to the newer model. While this solves many earlier issues with the systems, it also brings up new errors and bugs that will need fixing in the future. But as of now, while having to work on two separate systems at the same time, takes resources on just finding the correct people for these tasks. When there is only one system in use, it will mean that everyone can focus their learning and skill improvements on this same system and cooperating with tasks and solutions will be easier. With two systems we have two separate guide sections that are both filling up but changing to the new system with all stores would make the older guides obsolete. The main benefits of the new system include that all the information and files can be found from the same place, but compared to

older version, the log files are far inferior. In the newer system finding important information on the issue is much more complicated as the files have less information and it is less precise.

Here is more precise description of the POS system from softwareadvice.com: “A point of sale system, or POS, is the place where your customer makes a payment for products or services at your store. Simply put, every time a customer makes a purchase, they’re completing a point-of-sale transaction.

The latest point of sale software goes beyond credit card processing to help retailers and restaurants incorporate mobile POS features and contactless payment options, e-commerce integration capabilities, and more.

At Software Advice, our advisors help small business software buyers find the right retail POS software every day.”

2.9 Week 7

27.4.2021

Today was a normal 8am till 4pm shift, where goal was to solve as many tickets as possible, the weekend was busy with work so ideally all the problems from there should be solved today.

First problems came from a store that had their printer settings wrong, and they could not get anything out of the printer. I connected to their computer remotely and applied the wanted printer to the machines default printer and tested the prints. The default printer bounced back to the non-existing one, which caused the whole printing issue. I checked the location of the printer and noticed; it was not attached to the server computer. After changing this and rerouting the printer correctly, I was able to set it up as a default printer and the prints came from the correct location.

Another store had an issue where the machine froze after a cashier tried to give too big of a discount from a product. It appeared that two consecutive discounts were attempted to be applied at the same time, and this froze the database and the computer had to be shut down. There was no proper error log about this, and they product should be able to be discounted multiple times so the cause for the crash is still unclear. As it was the only time

it happened, it was better to leave it for the next time it happens again and see if there will be any error log files to go through and see what may have caused the issue.

A common issued reappeared as a store could not find their sales from a past date, this once again was caused by the fact that they had not closed the shift after closing the store. After manually closing the shift, the reports came clear, and sales numbers could be found.

Related to the money handling issues another case was open where a store could not find missing cash withdraws. I directed them to the system from where one can search for all the cash withdrawals from a certain period easily and find the ones they are looking for. Last few issues of the day were money related as well, where a store could not fix their sales numbers that were incorrectly put by the automatic counting system. The issues again were that the shift was not correctly closed which caused an error when trying to change the amount of cash in the locker, this is a safety precaution mechanic. After closing the shift from distance connection, we were able to change the amount to what it needed to be, and all the numbers started looking like they should.

28.4.2021

Today was supposed to be a normal call shift and goal was to answer all the incidents that would come through the hotline number, but as it turned out, the whole main server of our system was down and not any of the incident reporting tools, money handling tools or cash register operational tools would work today.

As soon as the shift started the calls started raining down as all the stores were calling about not being able to log into the system, print labels or handle cash transfers. The calls were coming one after another until we managed to send out message to all of the stores to let them know that the service was down today, and the programs were inaccessible.

As the teams near the main server area were investigating the root cause of the issue and solutions for it, I was handling some of the incidents I could see from emails, as I was able to call the customers with the information provided in the messages. These were mainly some issues solved earlier by me and I was not able to reach the customers back then. I also worked a lot on my instructions word file where I filled some very useful information how to use the SQL server and the search they provide for future incidents.

As I had registered all the calls from the morning from the customers about the system not working, I was ready to call them in after the issue was fixed. It was fixed closer to the end of the day, and I managed to call about ten customers and let them know that the system

was functional again and they were able to handle all the things they missed earlier because of the downtime.

The root cause was unknown, but it had something to do with an error in the main database system. The main database is located outside of Finland, so we had no way of seeing what was happening with the fix. We will be told later what the cause was and how it was able to be handled. A challenging day none the less.

29.4.2021

Today was another call shift where we take the calls from customers in need of help. Goal was to maintain the incidents and help all the people who had issues today.

Today's incidents mainly consisted of features that were affected by yesterday's server blackout. Most of the stores had their sale reports already renewed so nothing had to be done there.

While waiting for calls, I checked few stores night log reports to see if everything had passed as it should, everything seemed normal, and the reports ran about 2 am as they are supposed to. Most of the stores had no issues with products missing from reports either so whatever the fix for the incident was, it did not affect the automatic reports, which was a positive note.

Another store had issues with their discounts freezing the cashier machine. When a manual discount is applied to a product, the cashier machine would completely freeze and had to be restarted. The store only had two computers, and this happened multiple times, so it was critical to fix it as soon as possible. I went to see the computer shutdown log and noticed that the computer had not been properly rebooted for more than a week, which meant that every time they closed the computer, they would just press the power button and be done with it. I instructed them to properly close the computer from the windows menu and wait for it to boot back up. After this the freezing seemed to be gone and everything was working as intended.

A gas station called that they had their printers not working and prints were not coming out even when there were no visible errors. I suspected that this was the cause of yesterday's database problems and just told them to reboot the server machine. This seemed to fix the issue and the prints started printing normally.

30.4.2021

Today's shift was two hours shorter than usual as I did two extra hours earlier. The plan is to go to the countryside for the May Day so I planned this well ahead of time. Plan for

work is to handle all the incidents from my list as there is weekend ahead and I don't want to let them sit in my list for too long for no reason.

First issue to fix was that a customer needed new account for the POS-program. This is not something we can create, but instead we redirect these issues to the correct place, who then issue the account as ordered for the correct party. I sent them all the information in email and closed the incident.

Another bigger store had issue with lunch coupons, which is basically a credit card where you have a certain amount of money and you're supposed to be able to buy food with it. The issue is that the register machine does not know if it's a lunch credit card or normal credit card, so customers were able to buy anything with it. This was a new bug found in the system, I reported it and sent it forward for fixing to the developers.

Later another store called about the same issue, luckily these cards are not used often, and people usually just buy the food with them they're supposed to. None the less, it's good that this issue came to light of day and we're able to investigate it further and fix it.

A store had an issue with a text in the product which said that the product had an ingredient which it did not. I simply logged in to the root store manager page, selected the product and fixed the information.

There was a similar issue as earlier last week where a worker was shown in the reports of the store, even though they were not working for the days shown. This happens because the reports involve anyone who's done any sort of activity at the machine to the reports. This could mean them fixing a receipt, changing a product information or any change related matter. I informed the store about this and said that it could be changed if needed, as the reports can be based either by a certain machine or by certain worker. If the reports were changed to a worker base, this would give the numbers based on single workers interactions. They wanted the change, so I went to the parameter change table, switched the setting to the correct one, and scheduled it to apply at 10:05 pm after the store would be closed so it would not mix any ongoing reports.

Week 7 analysis

The printer issues took most of the time this week and some of them very permanently solved which as well was a pleasant thing. This means that they should not reoccur anymore and working hours can be put into the new issues ahead, instead of going over and over the same old issues. Call shifts have remained the same where older stores keep calling even though they should not, and newer stores have mostly issues with the first time reports and daily activities on the new system. The new stores are popping up in a fast manner currently and the more stores there are the more calls and problems there is going to be, but as the whole system gets more stabilized, I believe we will be back on

track with the incidents and tasks. As of now, the task list is closing on 120 below and above, which is nearly six times more than when I started working. This is all caused by the extra emergency phone service we started offering for the stores that are starting with the new system.

This week, most of the things learned was related to the new systems functions and how they work. Money handling issues happened often as well as bugs that caused the sums in the reports to show up twice as much as they were. I learned to fix the issues with the double sums, which is done within the SQL server system, but it turned out our team has no permissions to do so, but instead needs to be transferred to level 3, for them to do the database edits. Having said this, I've learned how to do the edits if in the future we are able to handle the edits. The edits are done in the reports database which records all the sales and amounts of sales of day, week and month basis. There is a way to change the numbers while a shift is not yet closed, but this fix will not work on already archived shifts. So, if the store had already done their daily closing of the shifts the sums are not allowed to be changed directly from the system. Other things learned this week about SQL server were checking of double registered sales on the reports database. This happens due to an unknown bug, where a sale is registered twice in the reports database, but not in the sales database, thus making the reports show that there should be more money that there is. These numbers are falsified by the bug though and can be changed from the system. The check is done simply by comparing the two databases and looking for numbers that are double in other and shown only once in another.

Main thing to search for data is iterative search of the results with while or for loops, as mentioned in (Nielsen, Paul, and Uttam Parui. Microsoft SQL Server 2008 Bible) "SQL Server is designed to handle data in sets. SQL is a declarative language, meaning that the SQL query describes the problem, and the Query Optimizer generates an execution plan to resolve the problem as a set. Application programmers typically develop while-loops that handle data one row at a time. Iterative code is fine for application tasks such as populating a grid or combo box, but it is inappropriate for server-side code. Iterative T-SQL code, typically implemented via cursors, forces the database engine to perform thousands of wasteful single-row operations, instead of handling the problem in one larger, more efficient set. The performance cost of these single-row operations is huge. Depending on the task, SQL cursors perform about half as well as set-based code, and the performance differential grows with the size of the data. This is why set-based queries, based on an obvious physical schema, are so critical to database performance."

2.10 Week 8

03.05.2021

The week after May Day started with an 8 till 4 call shift. The goal was to fix any issues that might occur for the stores for the day and answer all the calls directed to me. While waiting for the calls, plan is to take some gigs from the list and solve them during waiting time.

There were some missing reports incidents left from the weekend, so I started the day by taking them. The same procedure where I must send the store negative values of the sales, and then send the reports again so they get the correct numbers. Each of these usually take around 30 minutes if there are no issues in the process. I handled three of these to start the day off.

First call came while handling the reports, but it was not time sensitive to I just started handling it after all the missing products from reports incidents were done. They had problem with the cash register's money going negative, caused by a big money withdraw. They wanted to know how to officially report the money transfer to the cashier machine from another machine. I instructed them to do it through the safe instead, which is the usual procedure with this kind of money transfers. The money gets first transferred to a safe and then the same amount gets moved from safe to the cashier machine. After this the all the reports know where to money is and will not get mixed up from unnecessary transfers from one register to another.

Next store had problems with missing printers from their work laptops. They were unable to connect to the printers and print anything out. I took a remote connection to both laptops and noticed they had no assigned printers at all. I selected the wanted printers and assigned to the laptop, after this I rewrote their correct paths to the computer, so the machine knows where a certain printer is located. One more thing to do was to set up a printer as their default one. After this the printing tests were made, everything worked as they wanted, and prints came from the correct printers on both machines.

Few other stores called about issues with logging into the system, so I checked their account settings. It showed they did not have any permissions attached to their accounts, which means that the system will not let them log in. After applying the correct permissions, everyone was able to login and continue their work.

Later during the day few other stores called saying they did not receive their login details even though they had been ordered. I redirected the incident towards the people in charge of the account creation and had them send the user details again.

04.05.2021

Today's work was evening shift, which begins at 2 pm and ends at 10 pm. The goal was to handle all the issues that might come through the emergency phone and take as many gigs from the list as possible as I am the only one working from 4pm onwards.

First issues to tackle were a bigger store having problem with product labels printing automatically daily from products they are not selling. This is caused by the SAP-system acting on its own and sending info about products the store is not even selling in their system. These products still get handles as if they were at the stores database and the label of any changes gets printed. I made a change to the stores policies that any items that has not been sold for over 13 months will have their price labels inactive. This however will not work for all the products as they might be seasonal items or such. With rest of the products that will print without them being sold, the store had to manually remove the price labels from these to stop them from automatically printing in the future.

Same store called later about issues regarding printing of the reports. They could not print any reports from a certain workstation. This seemed like an issue of printer settings not set up properly. I started investigating the printer settings from remote desktop and everything seemed as they should, and the reports should all print from the correct printer according to the computer's printer settings and POS-settings. I called the store and asked them to try again and realized that they were trying to print labels and not reports. After checking the label settings, I found out they were not setup at all, which means the prints are not even supposed to happen. I applied new label printing settings for the correct printer, did test prints and saw that everything started to work as intended.

Next issue was with store having bottle deposit on the bottles that should not have them, these can include specially ordered drinks from American brands or some Estonian based beverages. I logged into the root store and removed all the bottle deposits from the items they do not belong to. This transfers the information to the other stores as well and all the pants were removed.

Again, a store had issue with server machine being slow, they claimed that the computer has been booted as instructed once a week, but after checking their logs, it showed that the machine had last been booted in March. The store had been closing the machine from the power button instead of properly closing it through Windows, and this caused major slowness thorough the whole computer. I properly rebooted the machine with remote connection, and it seemed like the slowness was gone and all the processes were working normally. I also instructed the store, how to turn and reboot the computer properly for the future.

A different store tried to give out discount of certain items and the machine would just reject these discounts and say that discount this big is not available. After checking the

stores max discount settings, I noticed it was set to 1, which means that the maximum discount they can give should be 100 percent. However, this causes issues sometimes when a discount is applied to a product that has already been discounted. This is fixed by changing the value to 0.99, as it goes not cover whole amount of the item.

A store sent a message twice and opened a duplicate incident regarding their worker accidentally shutting off a server machine for the night. With the older version of sales machines this could have caused serious issues as all the information that happened during the day transfers overnight, but with the new system it can happen the next day as well. So even if the machine is shut down for the night, the updates on the logs and files will just start working as the computer is booted and the information will be transferred as if nothing happened.

05.05.2021

Another call shift day today. Plan is to help anyone calling the line and solving some incidents from the list that no one else has taken.

First issues came from a store who had been trying to give a 50 percent discount from a product but claimed that the discount is showing up wrong. A product that has been discounted costs 1,99 and after the discount is applied the price is 1,25. I checked the logs of the transaction and it showed that there was another customer group discount applied to all the products of the receipt, which meant that this customer discount was registered for the product first, and then from this already discounted price the 50 percent was reduced. After doing the math, everything was correct, I called this to the store and explained how is 1,99 minus 50 percent equal to 1,25.

Today there was a lot of work to be done for my co-workers as well and I was the only one who had time to handle e-invoice resending. This meant that the stores had their sent invoices information incorrect, and the bills did not reach the receiver. There was a total of nine invoices to be fixed, from which five could be sent again with the same due date, but four of them had to be changed. The five invoices that did not need to be fixed could be resent by fixing their XML data and transferred to the out-folder of the server. If then a script file for resending the data was applied to the same folder, the invoices would be resent with the same due date, but with new updated information. For the rest I had to take a remote connection to one of the stores computers and manually go through all the bills that needed to be resent and change their due date to the future, and then apply the sent instructions to them. Luckily, the store was a bigger market, which means I can take remote connection to their server machine without having to ask for permission, as it's

usually not in use unlike in the smaller markets. I resent all the 9 invoices with updated information and confirmed to the store via email that it was done.

User called that they had forgotten their password so I went and updated it for them, I then tried to call back as they must change it after reset to six numbers of their choosing but could not catch them anymore. I used our email to text message service and send them their password straight to their phone number and gave instruction on how to reset the passwords next time they log in.

Once again there was few missing items from reports incidents opened and I was the best person to handle them even though I had the call shift. These are usually time sensitive as the correct amount of items information needs to be updated as soon as possible. I took all the gigs and sent negative numbers to the store again, resent the correct ones and made sure all the numbers were matching last week's numbers. Everything seemed correct so I informed the store that their sales were back on track.

Another call came in where the cashier machine froze in the middle of transaction and the store wanted to know if the payment went through. I checked the logs of the transaction and it showed that the machine never received the sent signal from the card reader. This means that the sale could never go through and was simply cancelled. Called the store that the customer was not double charged and instructed them to boot their machines more regularly as it was more than two weeks since last reboot.

06.05.2021

Today's shift was the earliest morning shift from 6:30 am till 2:30 pm. The emergency phone is held from 6.30 am till about 9 am. Today's goal was to solve all the current time sensitive incidents and take some load off the list.

The day started by a store calling around 7 am as they had problem with one of their registers. The register was a self-register, but the touch screen was not working so it was unusable by customers. The case was time sensitive as the store was tiny and had only two registers. To make matters worse, the register number one was supposed to have an update around 8 am, which would make it unusable for at least 30 minutes as the security updates are downloaded and installed. I checked the settings of the cashier machine and saw that there were no missing updates to be installed. I rebooted the machine, but the touch screen still would not work. I tried recalibrating the screen via remote connection and reboot once more. This seemed to do the trick and the touch started working normally.

As with most mornings this morning too was filled with incidents from stores about missing products from their reports. This time it was four different stores, but these were sent by the management of the stores instead of the stores themselves. I had to do all of these

one by one and send the negative item numbers and then send again the real numbers. Nothing changed and the numbers remained the same. I decided to call the stores and see if they had an internet loss or similar. They replied that the days were just slower than usual as it was bad weather, and they were in remote areas. Also, one of the stores had reduced their opening hours by two, which explained the missing sales. All these four incidents were raised without the corporate checking on the stores first, so running the negative number checks were in vain, good thing is the stores had not any missing numbers. The day continued with printer problems as many stores had some issues getting the printers to print from correct locations. I solved few of them with just resetting the printer location and testing the printing, somehow the earlier database break had messed up with the settings.

Another store had their reports showing strange numbers as the cash amount was not matching the amount calculated by the cashier after their shift. There was a strange amount missing and the cashier claimed there was not many cash withdraws that day. I went to the SQL database and ran a script that calculates all the cash from every receipt done on the day and runs up the number together. Then compared it with the POS-systems numbers. The amount of receipts and the total cash value matched, so this showed that there were no receipts missing in the system. I then checked if there was any money withdraws, but there were only few smaller ones that do not affect the numbers as much as the amount missing was. There were no unfinished safe transfers either, so one logical explanation was that the amount was missing and maybe a customer had gotten too much money back or maybe some money was dropped.

More stores came with problems in the account handling, where the store's employers had their permissions either missing, logging in problems, home stores incorrect or the password not simply working. All of these are simple adjustments in the program, and I handled them all at once to get them off the list. After this I called all the stores to let them know their IDs should be fine now.

07.05.2021

Today was a call shift, so the goal was to answer the phone and solve any matters the customers might have had.

There were no calls during the morning, so I handled few missing items from reports gigs. The usual task of sending negative numbers to remove incorrect numbers and then sending the actual numbers. Handled three of these to start the day off.

A store called and asked how to search for all the receipts from a certain year that had been cancelled. I connected to the store's computer remotely and showed the receipt browsers where you can apply all the wanted filters, which will then show you the wanted results. In this case we wanted to see all the receipts that had been cancelled during the year 2020, so I set the starting date at 01.01.2020 and ending date at 31.12.2020.

After this the calls started coming and customers said they were not able to manage the price changes or print labels at all. This appeared to be like the issues weeks back where the database problem occurred. Although this time the scale was much smaller. We made an emergency message for all the stores letting them know that some services will be down for a little while, to avoid the calls flooding our lines about the same issue. While waiting for this issue we had no control over to be gone with, I called few stores about their earlier issues that were fixed.

Another store called that their card reader was getting an error where it would not connect to the cash register, which means that any card sales cannot be made. I connected remotely to the problem cashier machine and logged in with service account. I removed their POS-user account and rebooted the machine; this forces the machine to create a new account. After rebooting the machine, the card reader still would not connect, so I told the store to remove any cords going to it and resetting the whole device with a button that's located at the bottom of the thing. After performing this, I instructed them to log out of the cashier machine and rebooting the computer as well. After all, came back alive and booted, the card reader got recognized by the cashier machine and started working normally.

Later we heard that the issues with POS-system were fixed, and stores were able to make price changes and label printing again normally. I called about ten stores to let them know that they should be able to do everything normally now and test if everything works as intended.

Week 8 analysis

This week consisted mainly of call shifts and the issues remained like those from earlier weeks, just the quantity was slightly more than usual. Stores had issues with money transfers and accounting functions of the system and needed help with those, some issues consisted of double numbers appearing again and questions regarding a certain cashier's sales not showing up or a whole day missing from the reports. Usually, the case with missing sales is that the cashier working there last night forgot to close the shift and the sales could not be registered. The fix is simply closing the open shift and letting the store know to try the accounting of the shift again. The sales will be shown on the wrong day and the numbers might have errors, due to sales being on the wrong day, but everything

will be accounted for. New stores also had some issues with the credentials of the cashier people, while they were unable to access the SCE-system. Some of these cases we can solve just by resetting the password and asking them to try again, but if there are any issues with the credentials, the store needs to contact a separate entity to get new sign in detail. This week seemed to be mainly focused on the actual stores who started no longer than 2 weeks ago, and they were the ones calling in need of help with starting to use the new system. The earlier occurred printing issues and label problems have been nearly reduced to zero, which was the most occurring issue during last few weeks.

This week I improved in handling money issues on the older systems, the newer version money issues are more familiar to me, but the increase of these similar issues on the older system this week made sure I got some more solid grip on their side of the issues as well. The handling of the older version issues differs from the new system as there is no one program that handles all the money transfers and can be easily done without disrupting stores everyday activities. In the older version you have to manually take distant connection to their server, and in some stores, this is the same PC they use for their daily activities as well. This means that we need to first call and make sure the PC is not in use and we are allowed to jump in there with a remote connection. Checking the reports and daily cash allocation is all done on the same program too, but it cannot be accessed without taking a remote connection to the server machine first. The

3 Discussion

The eight week “documenting my work” -period went by fast as I was writing down everything I did at work, and every day after work I would write it again in the diary thesis. This took so much of the free time so there was not much time for anything else and the time went fast. I have now been working with the company for about six months and it was interesting to reflect on what have I learned during a short period of time while looking back at all the incidents and gigs solved. It gave me great opportunity to improve at the things I’m doing and looking at the mistakes there potentially are happening.

Sometimes it was challenging to look back at the daily tasks and everything that had happened while writing everything down afterwards and remember the exact details of the events. It was also challenging to keep the writing interesting as some of the tasks repeated themselves and same issues reappeared on different dates. I think I found a good balance of new tasks to write while reflecting on the similar kind of issues that I’ve had in the past and learning from them.

While writing everything down I also had to keep in mind that not everything I do is allowed to be leaked outside, which means that I had to censor some of the material’s that I did and especially the photos I used in the thesis. I removed the name of the company and changed it to simple “IT-Company” because of this as well. The text had to be understandable in a manner where reader can understand what is going on, but also not revealing too much of the context that is not meant for outsiders’ eyes.

I believe I learned important skills and attributes during the writing of this thesis, such as: patience, credibility, problem-solving, stability and motivational skills. These all needed to be kept up to sustain the motion of writing new chapter every single day. Even during the weekends or day’s off, I had to reflect on the doings using my work laptop and write some things down I might have missed.

Writing the thesis was easier as I was working remotely from home, as I was able to have all my equipment with me and take notes during the working hours. These notes then became valuable when transferring the information to the actual thesis. There was no need to socialize with others or other interruptions and I was able to fully focus on my work and writing it down as it went down.

This was the first time I have ever constantly written down anything in a diary like manner, and I must say it feels good to look at all the progress afterwards. Seeing everything written down and reminiscing everything that was done and how issues were solved fills you up with a sense of accomplishment.

I believe all in all the whole process of writing the thesis in a diary format was a refreshing and rewarding learning experience that taught me plenty of new things and subjects of which I can use to my advantage in the future.

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