

Md Manwar Sayeem

Student Job Portal

Student Job Portal

Md Manwar Sayeem
Bachelor's Thesis
Spring 2021
Information Technology
Oulu University of Applied Sciences

ABSTRACT

Oulu University of Applied Sciences
Degree Programme in Information Technology

Author(s): Md Manwar Sayeem
Title of Bachelor's thesis: Student Job Portal
Supervisor(s): Veijo Väisänen, Timo Vainio
Term and year of completion: Spring 2021

Number of pages: 40+

The main objective of this thesis is to build up the web application using core technology. This web application is a great tool considering the aspects of current society. This document provides the information of every step and findings of the application during the development.

This report is here to help us to understand the importance of a platform where educated or skilled people can search and find jobs according to their requirements. On the other hand, organizations looking for skilled or fresher people can also be found for their organizations. "Student Job Portal" is a platform which works as a bridge for job seeker and companies.

This application was developed with the help of HTML and JavaScript as a front-end and PHP as a back-end to make an effective place where freshly graduate or students can apply for jobs directly to the company. This web application will also help the companies to sort the applicants according to their requirements to find the right person for the proper position. In this web application, candidates can make a profile and upload the necessary documents regarding their skills and studies. After this application is fully developed and functional, it will collaborate with various educational institutions and companies. This collaboration of these parties will make this web application more effective.

Keywords:

CSS, HTML, JavaScript, PHP, XAMPP, MYSQL

CONTENTS

1	INTRODUCTION	7
2	PLAN:	8
2.1	Objective:	8
2.2	Scope	8
2.3	Functional requirements	8
2.3.1	Students	8
2.3.2	Employer	9
2.3.3	Admin	10
2.4	Non-functional requirements	11
2.5	Html (HyperText Markup Language)	11
2.6	Php	12
2.7	jQuery	12
2.8	MySQL	13
2.9	Bootstrap	14
2.10	A sitemap	14
2.11	Schedule	15
3	DESIGN	16
3.1	Color theory	16
3.1.1	Color scheme	16
3.2	Choosing the color scheme	17
3.3	Creating the design	17
4	IMPLEMENTATION	18
4.1	User interface	18
4.1.1	Home page	18
4.1.2	Registration	19
4.1.3	Log in	20
4.1.4	Dashboard	21
4.1.5	Posting job	22
4.1.6	Apply for job	23
4.2	Recruitment process	23
4.2.1	Adaptive recruitment tools	23

4.2.2	Employer branding	24
4.2.3	Application process	24
4.2.4	Interview scheduling.....	24
4.2.5	Short listing of appropriate application	24
4.2.6	Talent sourcing platform.....	24
4.3	Features	25
4.3.1	Student.....	25
4.3.2	Company.....	26
4.3.3	Admin	27
4.3.4	Job Application & Candidate sorting.....	28
4.4	Testing	29
4.4.1	Testing objective:	29
4.4.2	Unit testing:	29
4.4.3	Integration testing:.....	29
5	WEBSITE	30
5.1	Home page.....	30
5.2	Footer	30
5.3	About us	31
5.4	Candidates Sign up	31
5.5	Candidates Sign in	32
5.6	Admin log in.....	33
5.7	Employers' Registration.....	33
5.8	Employers Sign in	34
5.9	Latest job flow	34
5.10	Contact us	35
5.11	Job details	35
5.12	Selected Applications	36
5.13	Application count report.....	36
5.14	Change image	37
5.15	Change Password	37
5.16	Company profile	38
5.17	Company Dashboard	38
5.18	Vacancy update.....	39
5.19	New Applications.....	39

5.20	Rejected Applications.....	40
5.21	Sort Listed Applications.....	40
5.22	Vacancy Reports Details.....	41
5.23	Application Details.....	41
5.24	Education Details	42
6	CONCLUSION.....	43
	REFERENCES	44

1 INTRODUCTION

During the last two decades, the world has become more advanced than in any other time. Every day, technology is evolving to make our life easier in every way possible. According to Analysis Firm Oxford Economic, 20 million jobs will be replaced by a robot in 10 years. We can use these technologies to do more productive work in a short time. For example, if we discuss the current thesis topic, this is a website that will help people save their time. But at the same time, search for a job more productively. Information technology is an essential part of technology, developing exponentially, unlike the other branches of technology.

The initial target of this thesis is to build a user-friendly web-based application. In this thesis, it has been narrated about the process of building a dynamic website which will serve a particular group of users like students and companies who want to hire people for their company. It describes in part two about the theoretical background, such as the programming language and tools which was used to build this web application. The next part of this thesis describes about the design and the implementation of the project. In addition, the whole process of building this web application, purpose, testing, and performance have been described in this thesis. At the end of the thesis, the conclusion follows up based on the author's knowledge regarding this project as well as discussion.

Student Job Portal is a place which provides interfaces to students and organizations. Portal gives the index of desired organizations to the students, as well as indicated by their instructive capabilities, experience, and inclinations. Portal gives the number of qualified students from pool as noted in the necessary ability for the organization's requirement.

The users engaged with this portal are:

- Admin
- Student
- Company

2 PLAN:

2.1 Objective:

The main target of the application is to help the job applicants and companies to communicate with each other. Companies and applicants can contact each other by using this application. Students can register on the system, and they can search for the available job posted by the company. The company can check the applicants' details and select suitable candidates or reject the application. Admin can maintain all the process on the system. Admin has complete control over the system. If any irrelevant or unethical issue appears, admin can act on this.

Companies can use this application to increase their business performance. "Student job portal" provides the opportunity to get accurate and vast information both for the students and companies. In this way, students can find a suitable vacant job, and companies also get the opportunity to select the candidates with their requirements.

2.2 Scope

The main scope of the system is like: -

- Maintain all the records of candidates and companies.
- Maintain the CVs uploaded by the applicants.
- Check the companies and the job, they posted.
- Maintain specifics of job posting as well as generate several reports.

2.3 Functional requirements

Following are the functional requirements of the project:

2.3.1 Students

- **Registration:**

Students must register on the job portal if they want to apply for any job. Users can find the registration button on the system. After a click on that button, a registration form will appear. Users

need to fill up all the compulsory fields and then need to press the submit button. After a successful registration, student can access into the system and apply for jobs.

- **Login:**

It gives access to the system only to registered users. Users need to write the correct email and password to log in to the application. After successful login, the user can access the home page.

- **Forgot Password Option:**

The user can retrieve the password if he forgets. The user needs to press the "Forgot Password have it retrieved?" button. Then a user can reset the password by using the mother email is provided.

- **Search Jobs:**

The candidates can search for the job using keywords, qualifications, categories, work status for the required position. All the jobs will display after a click on the search button.

- **Add CV:**

The user has the option to create a curriculum vitae (CV) and add the CV by himself. So, the system will ask the user to "have a CV" or "do they want to create the CV?". After clicking the button, system allows user to create or post CV.

- **Save Jobs:**

The user gets job notification which match with his keywords through the job portal. The user can save the jobs which concern him and check the job details and apply anytime. It helps the user to compare the jobs and set up a list of vacant positions.

- **Apply for Job:**

The candidate can apply for the job after submitting the CV and required details. The company get the application and candidate can get the notification about the action is taken by the company.

2.3.2 Employer

- **Registration:**

The company must register on the job portal if they want to post any job. The registration button is available on the system for company users. After a click on that button, a registration form will appear. The company user needs to fill up all the compulsory fields and then need to press the submit button. After a successful registration, the company user can access into the system and post jobs.

- **Login:**

It gives access to the system only to registered users. Users need to write the correct email and password to log in to the application. If the Id and password are validated, the user can access the application and the user profile.

- **Forgot Password Option:**

The user can retrieve the password if he forgets. The user needs to press the "Forgot Password have it retrieved?" button. Then the user can reset the password by using the mother email is provided. The user will be given the message with the correct password.

- **Search Resume:**

The employer gets the application and searches the resume which the applicants send. The employer also can search the resume by keyword, work category.

- **Add a New Job:**

The employer can assemble all details for the specific vacant job and post the job of the portal. There should be the job title and other important information like workplace, salary, definition, the requirement of skill, type of position etc.

- **Manage application:**

When the candidates apply for the job, the employer gets the application. After that, employers can check the applications and accept and decline the applications and move them to a waiting list.

2.3.3 Admin

- **Manage the students and Employers Module:**

Admin has the responsibility to manage the student's and employer's modules. The duties include managing users, username, password etc.

- **Send Notification Messages to Employers and Jobseekers:**

Users get the confirmation from admin when they subscribe to the job portal.

- **Ability to change the website's interface look:**

Admin must handle the website's interface. This involves modifying menu items in the menu bar, displaying content, as well as displaying color if the GUI is used.

- **Sending notification to candidates, members, and employers:**

Users may get subscriber notifications from the admin regarding all details such as subscriptions, events etc.

- **Display recent jobs on the home page:**

The job offer may post by the companies on the website continuously. Admin has the responsibility to remove the old job offers and keep the job offers up to date.

2.4 Non-functional requirements

After finishing all the functional requirements, the user can log in the system and update his profile. And user can upload their CV, update their professional skills, their interests. In the profile, short keyword can also be added to easily find suitable professionals for their company.

2.5 Html (HyperText Markup Language)

HTML is the Hyper Text Markup Language. HTML can be used for creating any kind of website. HTML is the backbone of all sites. It is the basic/primary of all markup languages. HTML and HTML5 originated from the same root, but they are different, and HTML5 has more function and ability to tweak the sites.

Mostly HTML5 is the elementary language of structuring and presenting the content to the reader. HTML5 was first released in 2008 with a significant update and got W3C recommendations in 2014. HTML5 is now the living standard.

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<h1>This is a Heading</h1>
<p>This is a paragraph.</p>

</body>
```

Figure 1: Example of HTML code [HTML Tutorial, w3schools, Date of retrieval: 30 August 2020]

HTML can execute operation embedded in a scripting language like JavaScript, that moves the content of web pages. Inclusion of CSS defines the look and outer part of content. The World Wide Web Consortium (W3C), a previous maintainer of the HTML and present maintainer of the CSS standards, suggests the use of CSS over the explicit showing of HTML since 1997.

2.6 Php

PHP is a server-side scripting language. It has been developed to build Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Pre-processor. PHP scripts can only be executed over a server which has PHP installed.

The user computers processing the PHP scripts need PHP to be installed. PHP is open-source and free of cost. Short learning curve compared to other languages such as JSP, ASP etc.

PHP has a Large community document. Most web hosting servers support PHP by default, unlike other languages such as ASP that need IIS. It makes PHP a very cost-effective choice. PHP is updated regularly to keep abreast with the spinning technology trends. PHP is installed in a server, and those who use it don't need to be on their computers. Only a web browser can call all the programs from the server. PHP is compatible with MYSQL.

In this thesis, the functionality of PHP and the integration between PHP is mainly used on the website. In addition, it dynamically connects the database of the web page.

```
<!DOCTYPE html>
<html>
<body>

<?php
echo "My first PHP script!";
?>

<
</html>
```

Figure 2: Example of PHP codes [PHP Tutorial, w3schools, Date of retrieval: 30 August 2020.]

2.7 jQuery

jQuery is the most famous language used for the purpose of scripting. jQuery can be used without installing a browser or extension. Brendan Heart is the creator of jQuery. jQuery has a huge community as well as forum support. jQuery is been used for mobile applications vastly these days.

In all the sectors, the investment in jQuery has been increasing at a very steady rate. jQuery is very simple and easily executable. It is the most popular and widespread scripting language for programmers. In addition, almost 95% of websites, real-time networking messaging programs,

video-sharing services use JQuery. JQuery is also a versatile script that defines an object as a first-class dynamic function and helps control a web page's operation. In a nutshell, it can also run inside a window or in a node. This language is helpful to build properties that will set you apart from a beginner to a JQuery website.

```
$(document).ready(function(){  
    $("p").click(function(){  
        $(this).hide();  
    });  
});
```

Figure 3: Example of jQuery codes [jQuery Tutorial, w3schools, Date of retrieval: 29 August 2020.]

JQuery may work in other environments, such as the remote server NodeJS compiler or the operating system scripts. The success of modern browsers created a new wave of JQuery frameworks. Like CSS, in the header, JQuery is encoded in the HTML and can be used just as much as CSS, but the file extension is different.

2.8 MySQL

MySQL transactions execute as a sole unit, that means unless and until all separate operational stage is perfectly completed, the transaction is not erased. So, if an input breaks at any point, the whole transaction happening in that group falls apart. MySQL shows that financial transaction has data integrity, so customers can make hassle-free transactions online.

MySQL gives us the opportunity to unparalleled flexibility that indicates efficient management of deeply integrated applications, even in massive data centers that stack significant chunk amounts of mission-critical info. It enables complete cumulation to cater to the only one requirements of eCommerce businesses with a much smaller footprint. MySQL provides ultimate platform flexibility to enterprises that requires added features and functionalities for their data servers.

Consistent availability is the stalwart feature of MySQL – enterprises that deploy it can enjoy round-the-clock uptime.

2.9 Bootstrap

Using Bootstrap depends on the purpose it serves. For the Student Job Portal Bootstrap is mandatory because it needs certain features for some purposes. Bootstrap is been used for all the components, widgets, and styles. It can be used for rendering data and fast load.

Bootstrap can be called with a single line of embedded code as like as jQuery and it is a mandatory tool for responsiveness. It is to use SASS / LESS versions of all these HTML/CSS frameworks and instead of using built-in classes and utilities. But it requires SASS knowledge and few more things.

```
<div class="jumbotron text-center">
  <h1>My First Bootstrap Page</h1>
  <p>Resize this responsive page to see the effect!< />
</div>

<div class="container">
  <div class="row">
    <div class="col-sm-4">
      <h3>Column 1</h3>
      <p>Lorem ipsum dolor..</p>
    </div>
    <div class="col-sm-4">
      <h3>Column 2</h3>
      <p>Lorem ipsum dolor..</p>
    </div>
    <div class="col-sm-4">
      <h3>Column 3</h3>
      <p>Lorem ipsum dolor..</p>
    </div>
  </div>
</div>
```

Figure 4: Example of Bootstrap codes [Bootstrap 4 Tutorial, w3schools, Date of retrieval: 29 August 2020.]

2.10 A sitemap

The below figure gives the layout of our sitemap which includes companies online work database. This sitemap helps intended user to search through any part of website more efficiently and quickly.

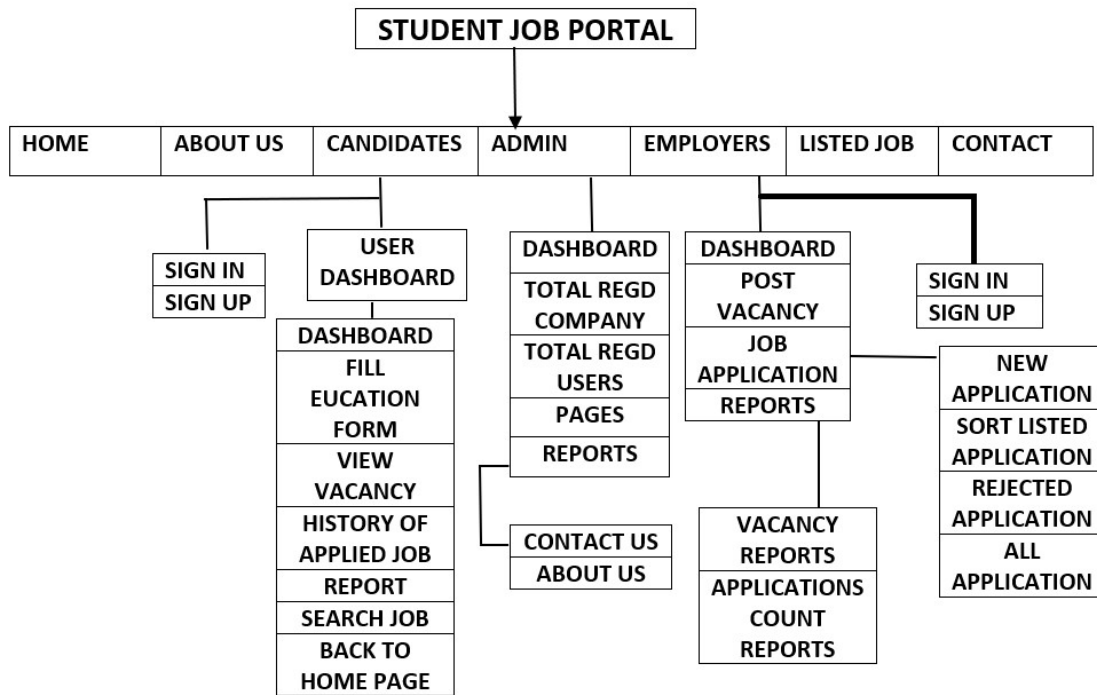


Figure 5: Sitemap of the project

2.11 Schedule

It is very important for having any action plan for any type of job hunting. In our application one can search for any job at any period of time. The main goal of this plan is to keep one's resume up to date and always include new skills which helps in the quest for searching/getting a new job very quickly.

3 DESIGN

3.1 Color theory

In our project, we used CSS for maintaining the structure, color, and configuration of the web design. Colors play a very important role on how one perceives the website. So, it is very critical in the web designing process as each shade of colors on their own psychological instinctive.

There are three types of colors:

1. Primary
2. Secondary
3. Tertiary

Color codes in CSS:

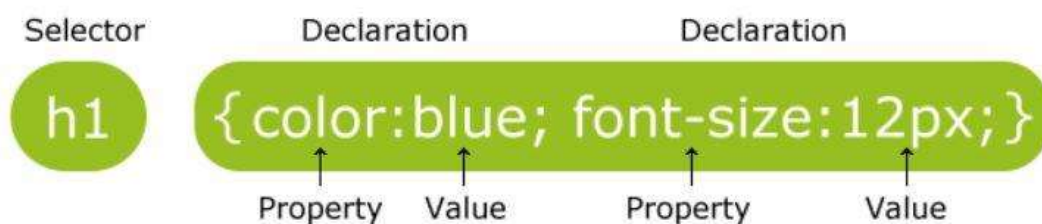


Figure 6: Description of CSS [CSS Syntax, w3schools, Date of retrieval: 27 August 2020.]

3.1.1 Color scheme

It is important to choose the right color for the website as a user gets a good impression when he browses for the first time. It is needed to make sure to use the right colors in the right place when building the site. Each color indicates a different message that makes it easier for the user to browse the site.

3.2 Choosing the color scheme

First, different cultures have a different meaning of color. So, the color is chosen for designing a website is depend on which country the website or product belongs to.

Second, the use of color is very important because it increases the ability to attract visitors to a website. So, we should not use too many intense colors on a website. It can be eye-catching for users. Light color can also make it blurry. So, we need to use a color that makes web pages clean and clear.

In some cases, the designers feel hesitant to choose different colors. In this case, the job of a skilled designer is able to select the proper color of the website. Every color describes a different kind of meaning. So, it is very necessary to use the right color in the proper place.

3.3 Creating the design

The world is now moving in a completely digital way. So, the success of any business in the present day depends on its website. A website is an interface that combines four topics: copywriting, typography, layout, and art. Where not only aesthetic beauty, but also an easy and smooth connection of content is made. That's why some things have been noticed on this website, such as: Goals of the website, using the proper design related to the content, user-friendly interface, using proper color and image selection.

4 IMPLEMENTATION

4.1 User interface

In this part, about the user interface will be described so that reader can have a clear idea about this project.

4.1.1 Home page

The given picture shows the homepage of the project. In this picture, we can see, different navigation buttons are situated on the top of the page. Every button redirects the user to a new page for continuing the action of the user.

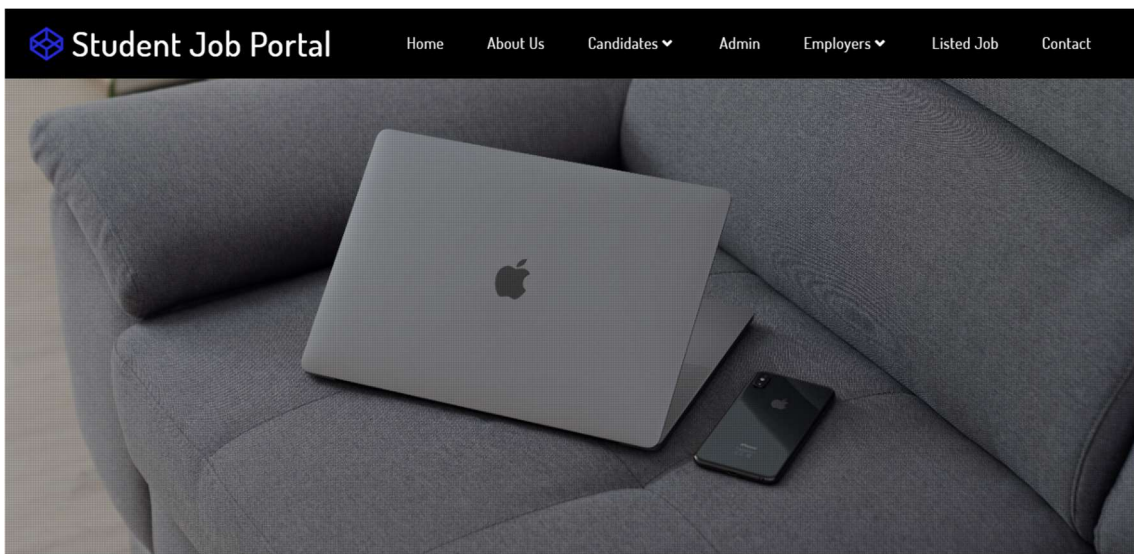
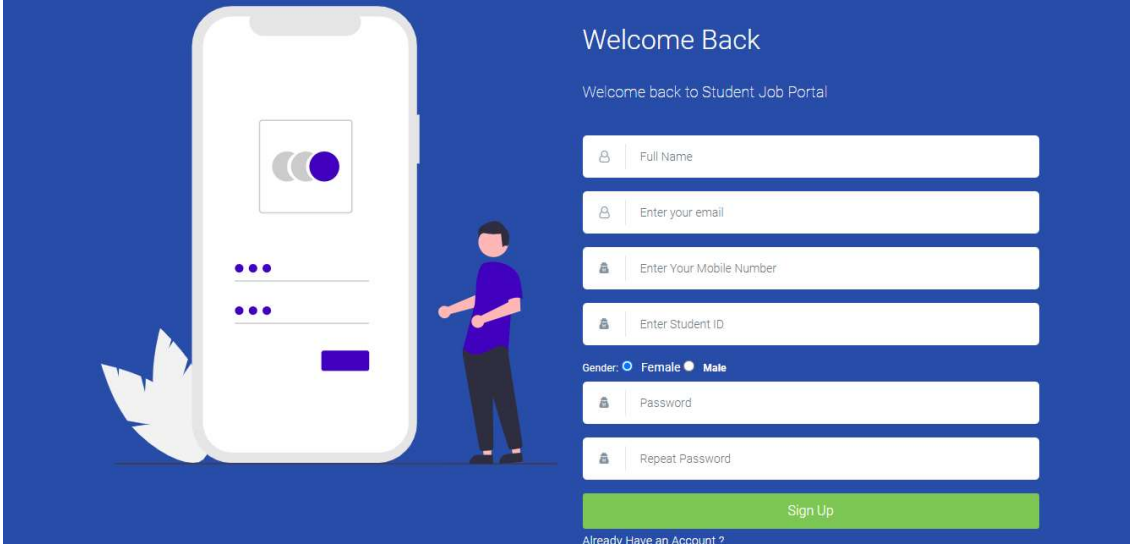


FIGURE 7: Homepage of the project

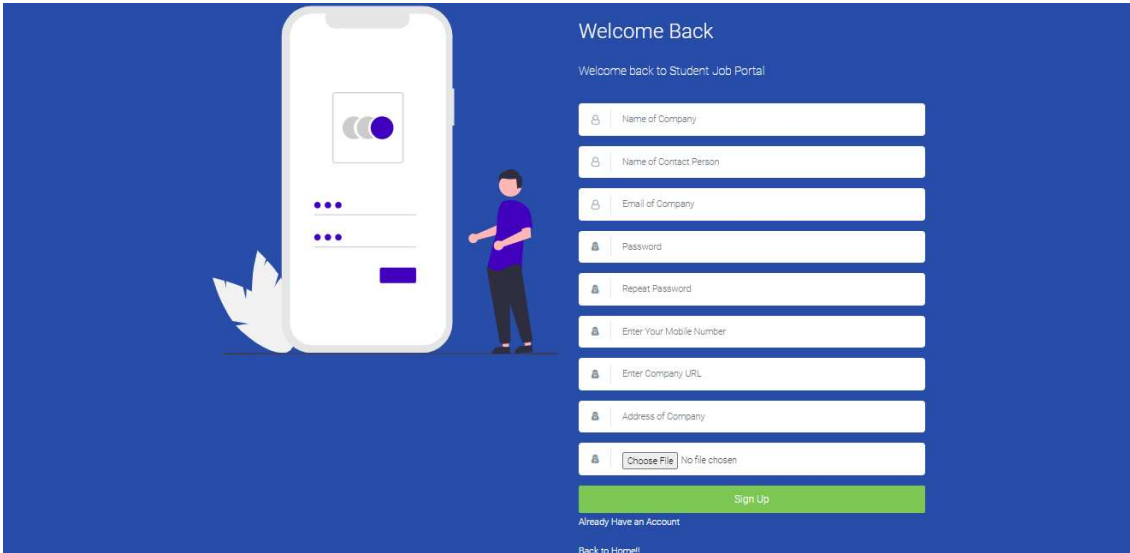
4.1.2 Registration

The below pictures show the registration page of companies and job seekers. In this section, users can provide the information asked by the system to register themselves in the system.



The image shows a registration form for candidates on a blue background. On the left, there is a large white smartphone icon with a person silhouette and a green button. The form is titled "Welcome Back" and "Welcome back to Student Job Portal". It contains the following fields: "Full Name", "Enter your email", "Enter Your Mobile Number", "Enter Student ID", "Gender" (with radio buttons for "Female" and "Male"), "Password", and "Repeat Password". A green "Sign Up" button is at the bottom, with a link "Already Have an Account?" below it.

FIGURE 8: Registration page of candidates.



The image shows a registration form for a company on a blue background. On the left, there is a large white smartphone icon with a person silhouette and a green button. The form is titled "Welcome Back" and "Welcome back to Student Job Portal". It contains the following fields: "Name of Company", "Name of Contact Person", "Email of Company", "Password", "Repeat Password", "Enter Your Mobile Number", "Enter Company URL", "Address of Company", and a file upload field with a "Choose File" button and "No file chosen" text. A green "Sign Up" button is at the bottom, with links "Already Have an Account" and "Back to Home!" below it.

FIGURE 9: Registration page of company

4.1.3 Log in

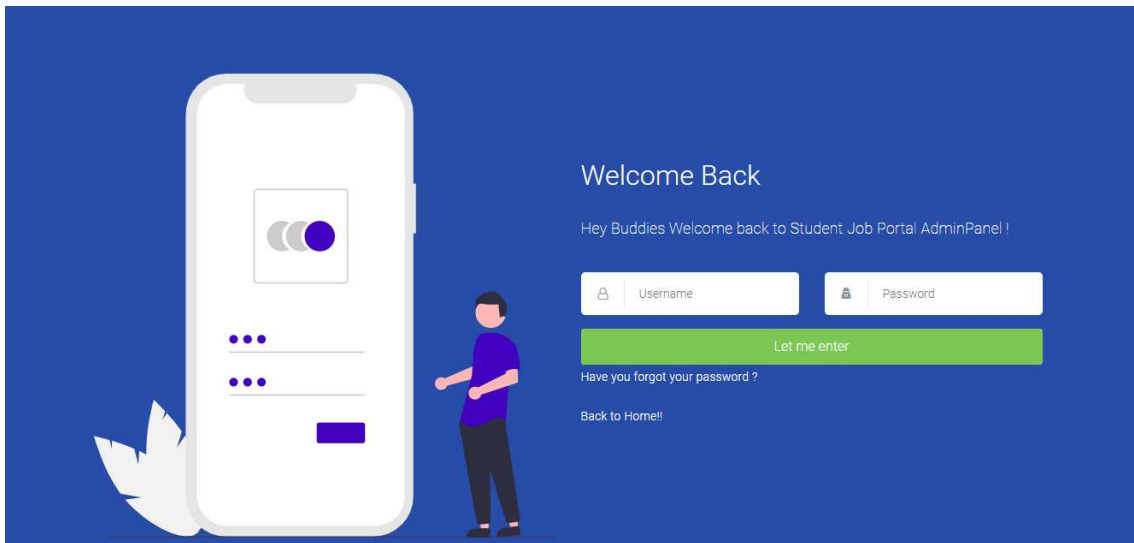


FIGURE 10: Admin log in page

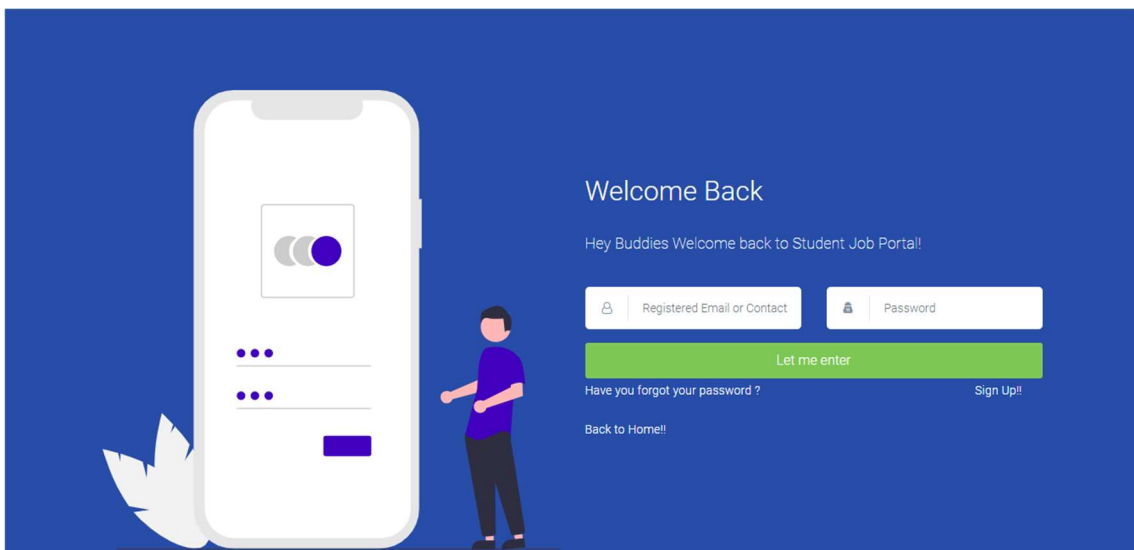


FIGURE 11: User login page

The pictures above provided show us the log-in pages for admin and general users. In this section, the respective users must provide their login credentials to continue the service they provide.

4.1.4 Dashboard

The following pictures show the dashboards of the users. When respective users input their credentials to log in to the system, they are directed to the dashboard after successfully logging in. These dashboards contain all the necessary actions for a user to complete a session cycle.

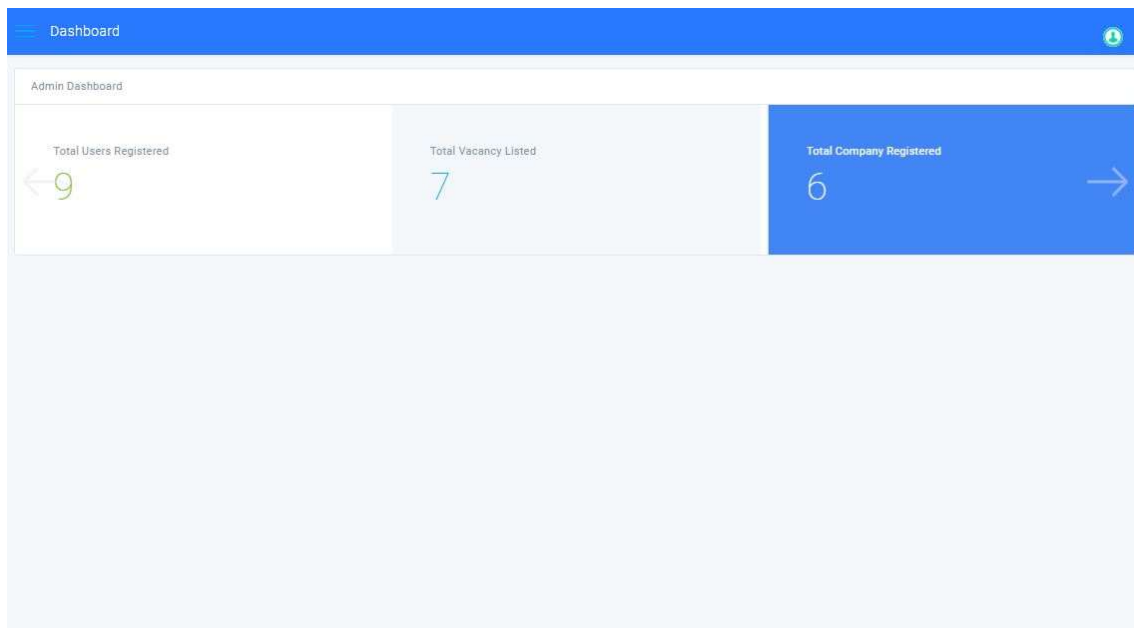


FIGURE 12: Admin Dashboard

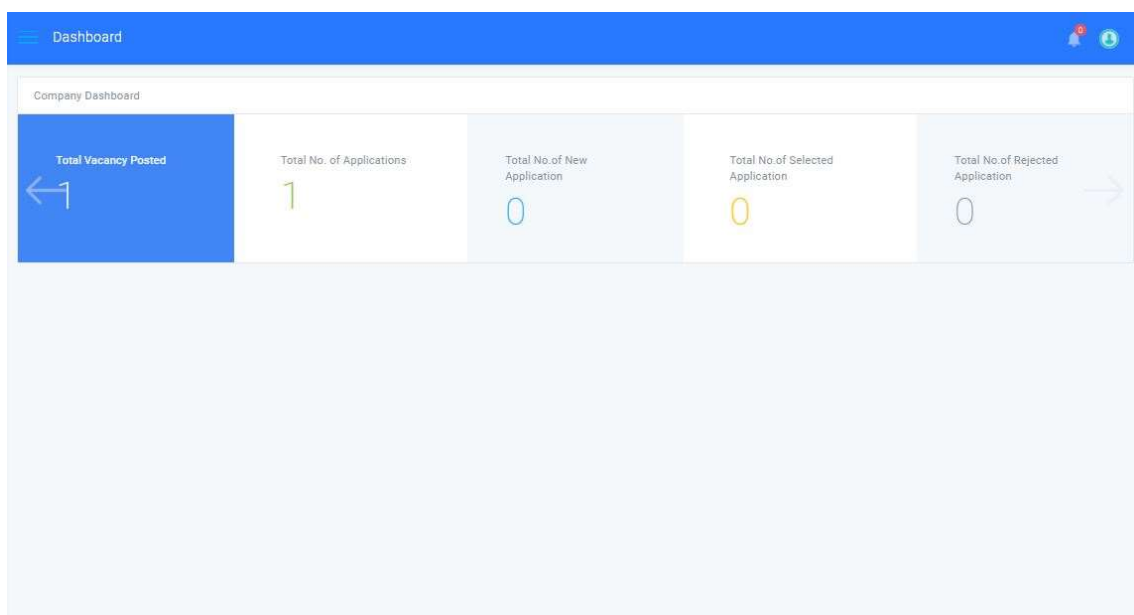


FIGURE 13: Company Dashboard

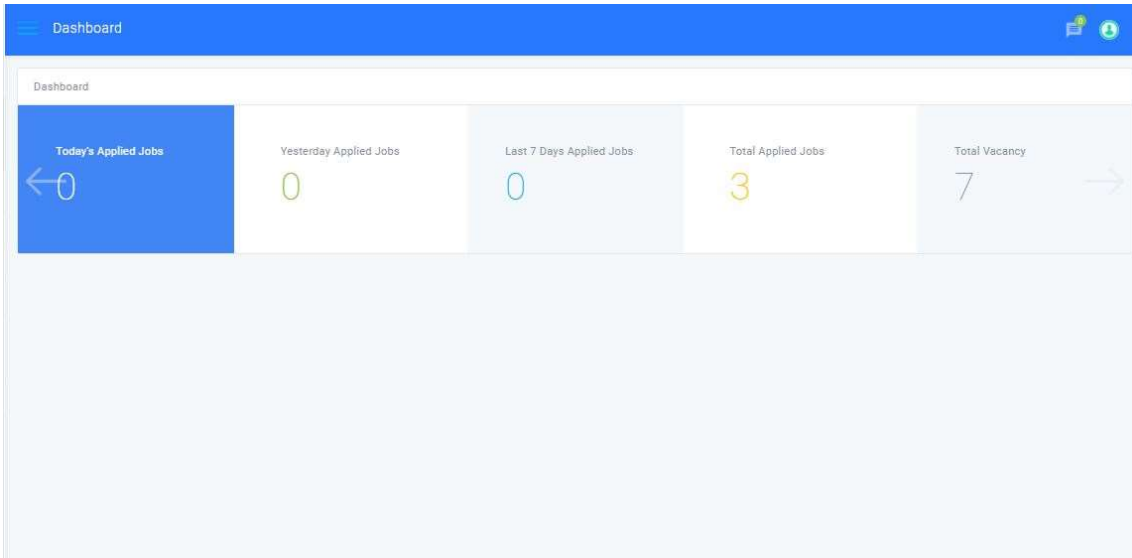


FIGURE 14: Student Dashboard

4.1.5 Posting job

The 'Add Vacancy' form is displayed on a blue header. It contains several input fields for job details:

- Job Information** (Section Header)
- Job Title**: Input field with placeholder 'Job Title'.
- Monthly In-hand Salary**: Input field with placeholder 'Monthly In-hand Salary'.
- Job Descriptions**: Text area with placeholder 'Job Descriptions' and a clear icon.
- Job Location**: Input field with placeholder 'Job Locations'.
- No of Opening**: Input field with placeholder 'No of Opening'.
- Apply Date**: Date picker with value '2018/06/01' and a calendar icon.
- Last Date**: Date picker with value '2018/06/01' and a calendar icon.

An 'ADD' button is located at the bottom left of the form.

FIGURE 15: Add vacancy page

This picture shows how registered companies post vacant jobs in the system to find skilled employees. Multiple fields need to be filled with relevant information to post the job vacancies successfully on this page.

4.1.6 Apply for job

This page is navigated from the listing page. On this page, candidates can see details of the job with the "Apply Now" button. The candidate can approach to apply for that position.

DETAILS OF
Jobs

Job Title	Junior Web Developer
Company Name	Nokia
Monthly In-hand Salary	2000\$
Job Descriptions	Expert with php, javascript.
Job Location	Helsinki
No of Opening	3
Apply Date	17-05-2020
Last Date	20-06-2020

[Apply Now](#)

FIGURE 16: Details of job

4.2 Recruitment process

It is very important for a company and applicants to follow certain processes and rules to recruit the right professional or get recruited by the right company.

4.2.1 Adaptive recruitment tools

In the world, different companies use different requirements in the recruitment system. Even in a single company, different rules can be followed to recruit in a different position. Like, a managerial position needs more experienced professionals than entry-level positions. Maximum job recruitments follow multiple steps in the recruitment process.

4.2.2 Employer branding

The company should post job advertisements according to their market values. It means that a good company should focus on their branding while advertising for recruitment. According to their skills or experience, a particular group of candidates by themselves narrow down the companies or job positions.

4.2.3 Application process

The application process should not be complicated. The company should narrow down the recruitment information from the candidate and make it simple and short but productive to assess the candidates according to their job position. A candidate should not fill a long form with unnecessary information.

4.2.4 Interview scheduling

The organization should use a system that automatically makes the schedule through software so that different candidates' interviews do not overlap. And the process should be simple and easy for the applicants not to call or email to book an interview scheduled with the employer. On the other hand, when they finish the application, they should have contacted by the organization through the software or the system via mobile SMS or email by informing them of their interview schedule.

4.2.5 Short listing of appropriate application

The organization should shortlist the application before scheduling the interview. The company should review the candidate's cv, and by considering other factors, they should draw out irrelevant applications. With this process, company will be able to save both their and potential candidate's time.

4.2.6 Talent sourcing platform

Nowadays, while recruiting, company usually post recruitment advertisements on different social platforms. It is very complicated for the applicants to find right job advertisement at the right time. If all the companies post their job on a single platform, it would make the recruitment process easier for employers and potential applicants.

4.3 Features

This web application contains different kind of features for both admin and users. This feature is very important for this application and they make sure to meet the needs of the users properly.

4.3.1 Student

- **Guest User**
- **Registered User**

Guest User:

- Home Page: All users can view and check the job posted in the portal.
- List of Jobs: Users can browse the jobs posted by companies in our application.
- About Us: Every User can see the details about the job portal on "About Us" page.
- Contact us: The user can contact the listed company through the "contact us" section in the job portal.
- Candidates: New users can register themselves.

Registered User:

- Home Page: Register users can view the newest jobs posted by companies on the home page.
- List of Jobs: Register users can browse the latest jobs posted by companies in the application.
- About Us: Register users can see the details about the job portal in "About Us" page.
- Contact us: The user can contact the listed company through the "contact us" section on the job page.
- Dashboard: Register users can check their activities in the dashboard. Such as:
- Check applied jobs: The user can check all the jobs he/she applied for through this student portal.
- Educations forms: The user can find a form about education where he/she can fill-up the form with all educational information.
- Record of Applied Jobs: The user can check the jobs which are already applied. They can also check the feedback from companies.
- Check Vacancy: Here, the user can check the vacancy and details about the vacant job.
- Reports: The user can check the jobs he/she applied for in a specific time frame.
- Search for Jobs: Candidates can search for the jobs here on the report of

Job categories.

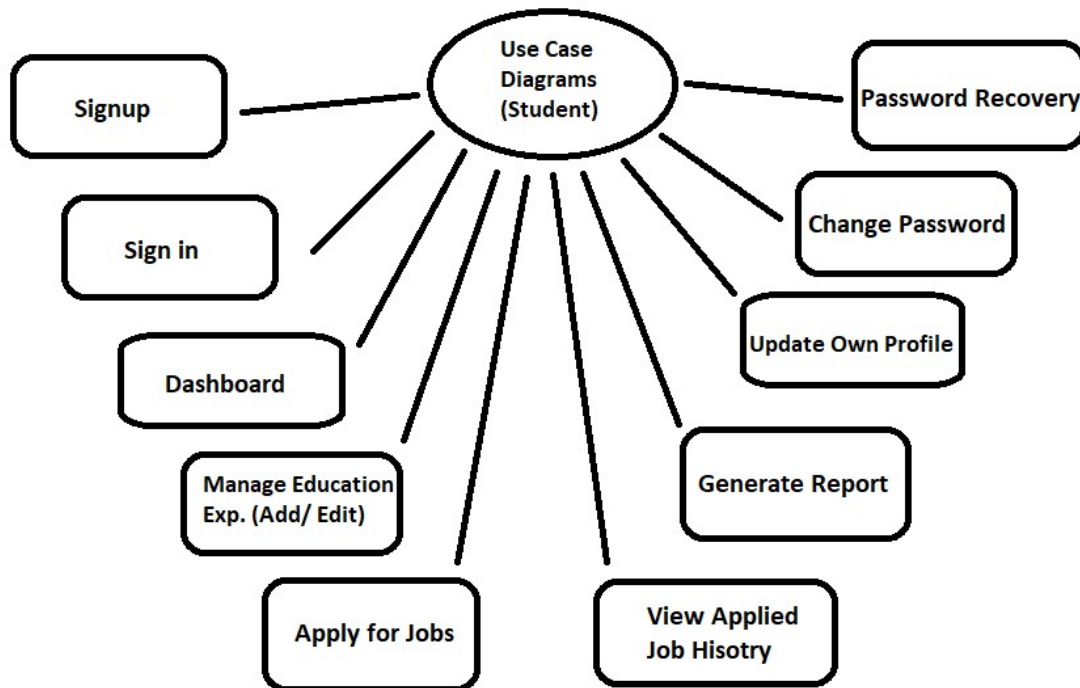


Figure 17: User case diagrams of students

4.3.2 Company

- Dashboard: Employers can view the information about candidates and their applications. They can also check the other numbers here.
- Job Vacancy: Companies can add or remove jobs in this function.
- Application: In this section, companies can view completely new applications received, total sorted applications, and total rejected applications, and companies also have the rights to sort applications and reject applications and this selected and rejected message sent to candidates. Companies can check all the application information. Such as: new applications, selected applications, rejected applications etc.
- Reports: Company can check the number of posted jobs and apply for a certain period of time.

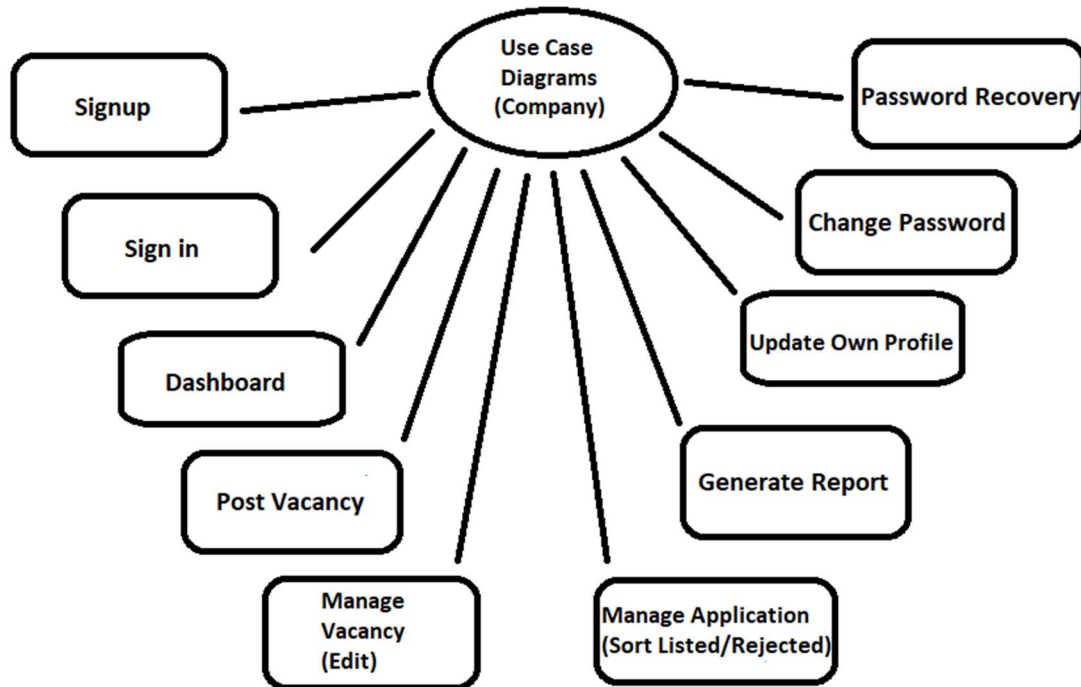


Figure 18: User case diagrams of company

4.3.3 Admin

- Dashboard: Admin can check all the information related to user and job listed in the application.
- Pages: Admin can change the layout of the web application and change the information of the pages if required.
- Reports: Admin can view the total number of listed jobs and company details in this section.
- User: Admin can check all the registered users and companies. Admin can suspend/delete user accounts if necessary.

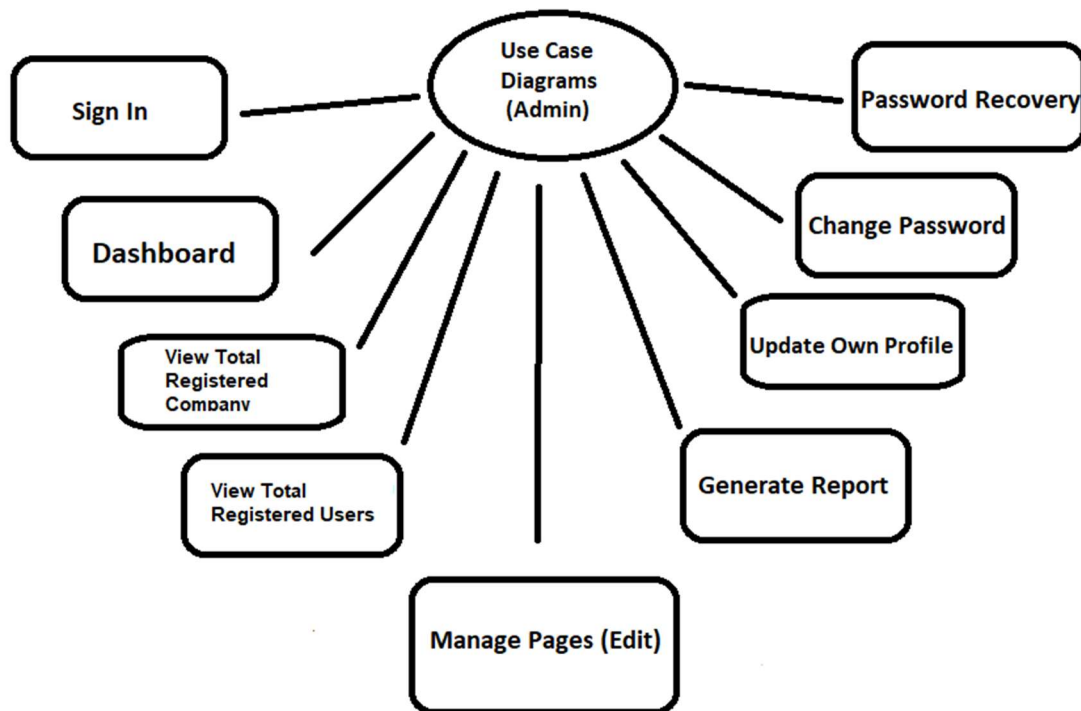


Figure 19: User case diagrams of admin

4.3.4 Job Application & Candidate sorting

Student Job Portal has the resources that a company needs to make the recruitment process swift and meaningful. There is a significant amount of job vacancies posted daily, and many applicants apply for these jobs. Among those applicants, some applicants are very experienced, and they meet the requirement of the vacancies. But there might be some applicants who do not fulfill the criteria of the companies. It is very difficult for the companies to select the right candidate from the applications when there is a mix-up of all types of applications. It is very difficult to do this job manually. So, this kind of web application has some sort of parameters option, which an employer can set while posting the job in the system. So, when candidates apply for the job, it becomes very easy for the companies to shortlist the candidates' applications.

This web application also has a tracking system that keeps track of the candidates who are being short-listed after applying for the job. This system also updates meeting time automatically and make sure they resurfaced to the companies to remind them about the candidates.

4.4 Testing

In order to maintain the quality of software, the developer should do testing of their application. This testing method has multiple steps that can be followed for testing the application to ensure quality.

4.4.1 Testing objective:

The following points are referring testing objective:

- Testing is done throughout the development process to find the errors inside an application.
- Testing should be doing to find the new development idea.
- Testing also helps a developer to achieve their targeted goal and allows them to make the application more user friendly.

4.4.2 Unit testing:

Unit testing means when testers test an application in small components, that means when a part of the application is completed, tester tests that part separately at the same after developing the application. During the development of this web application, all the application components have been tested separately to make sure all the section works properly.

4.4.3 Integration testing:

Integration testing is very important phase in any software testing. SO, when an application is completed, tester tests all the combined modules of the application as a group. This thesis application is tested with integration testing, and all the tests are successful.

5 WEBSITE

5.1 Home page

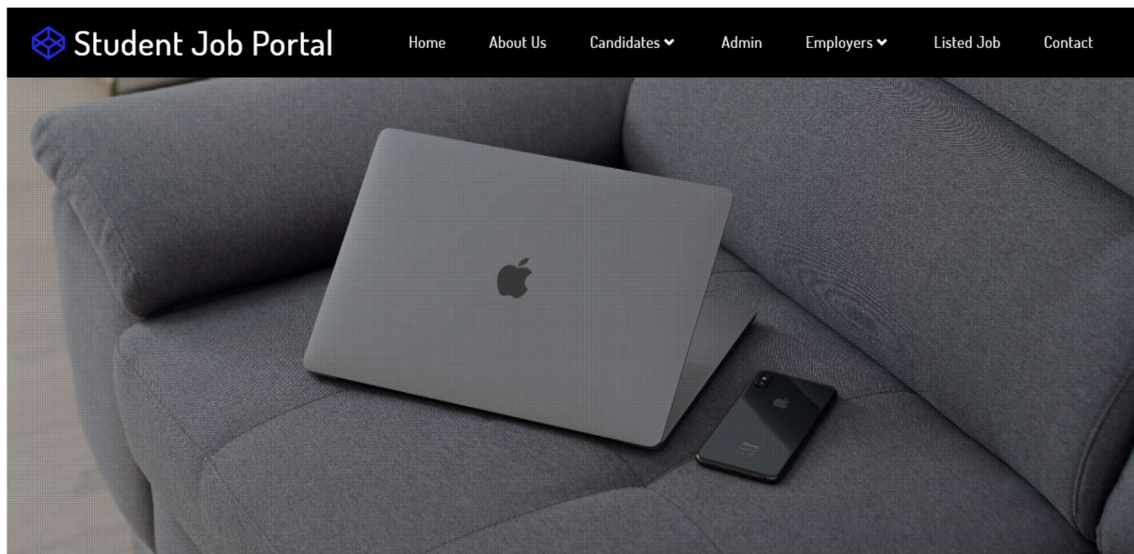


Figure 20: Home page of the website

5.2 Footer

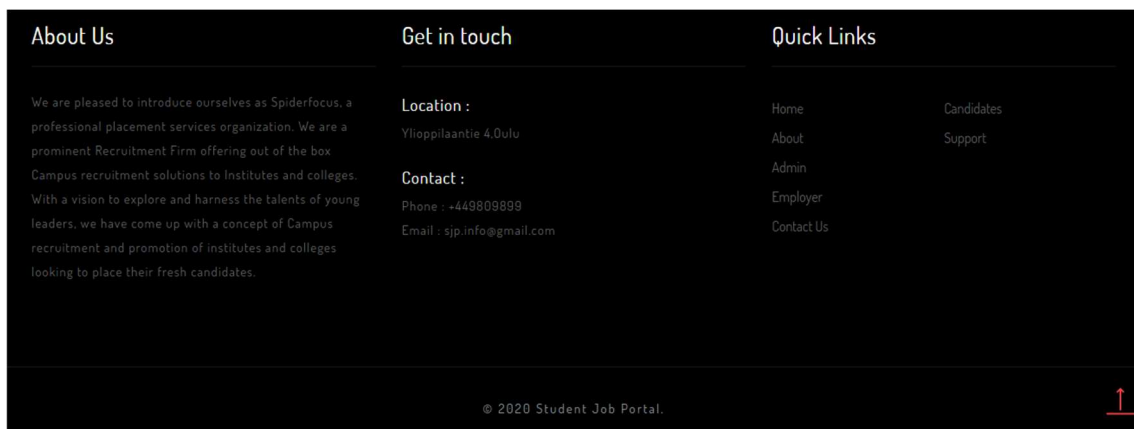


Figure 21: Footer of the website

5.3 About us

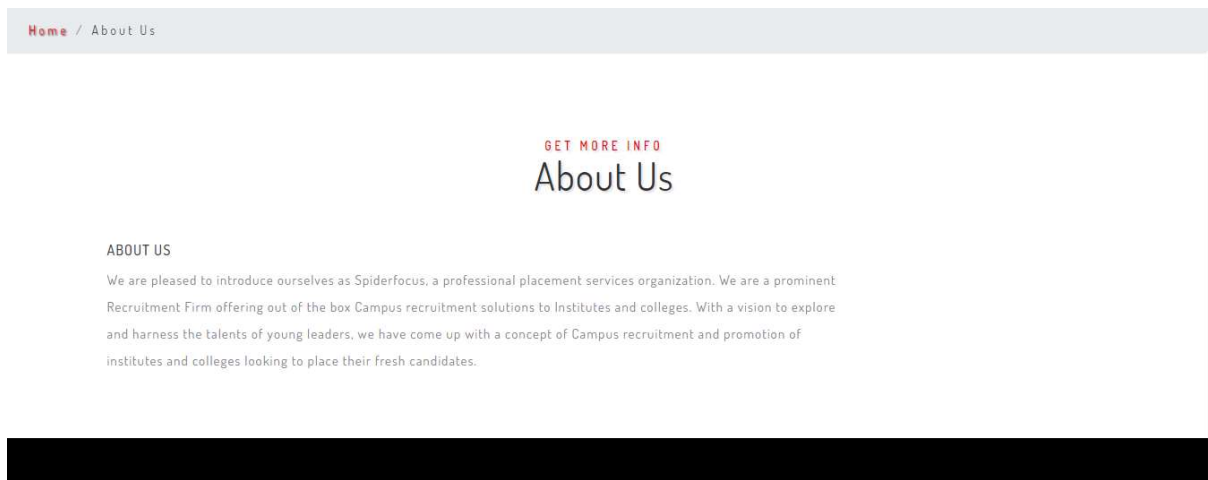


Figure 22: This is the “About us” page of the website

5.4 Candidates Sign up

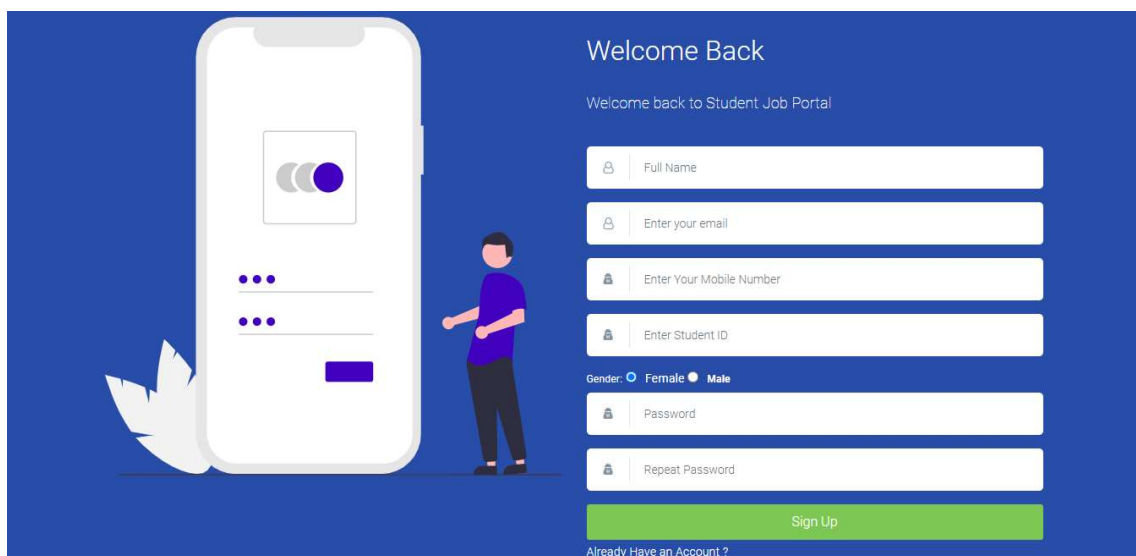


Figure 23: Sign up page for candidates.

5.5 Candidates Sign in

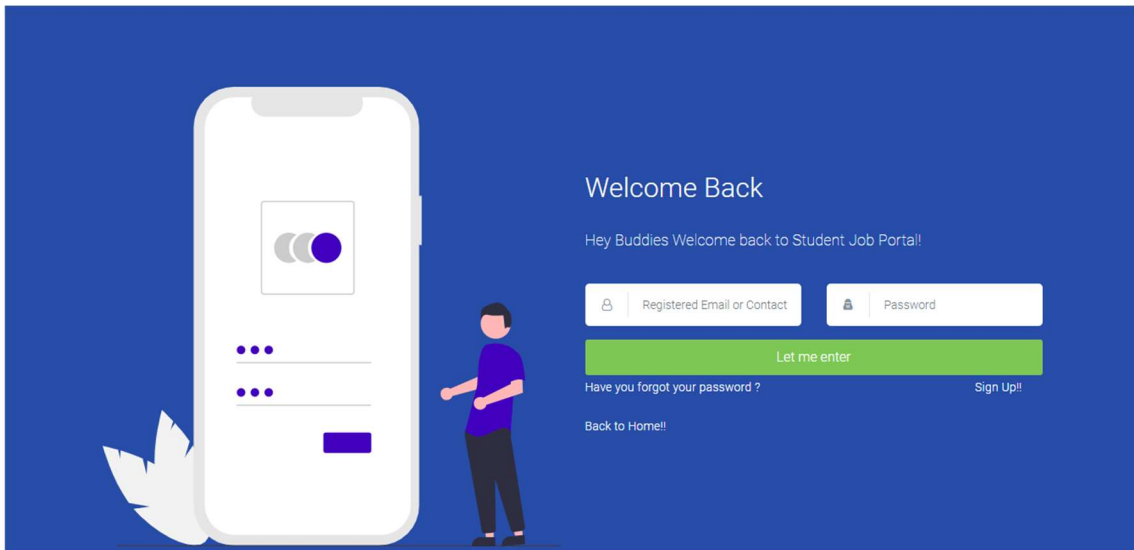


Figure 24: Sign in page for candidates.

5.6 Admin log in

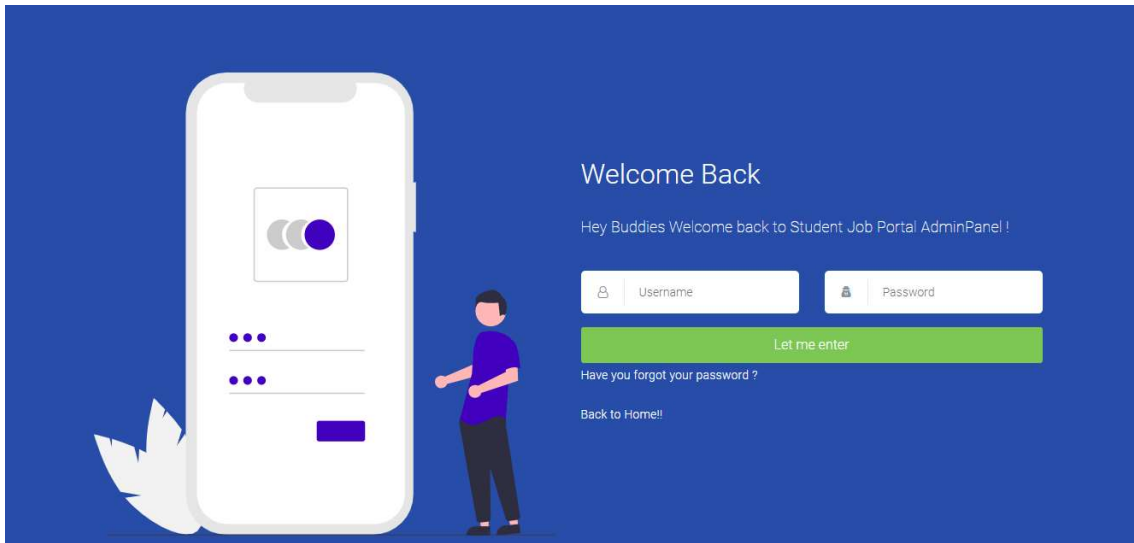


Figure 25: Sign in page for Admin.

5.7 Employers' Registration

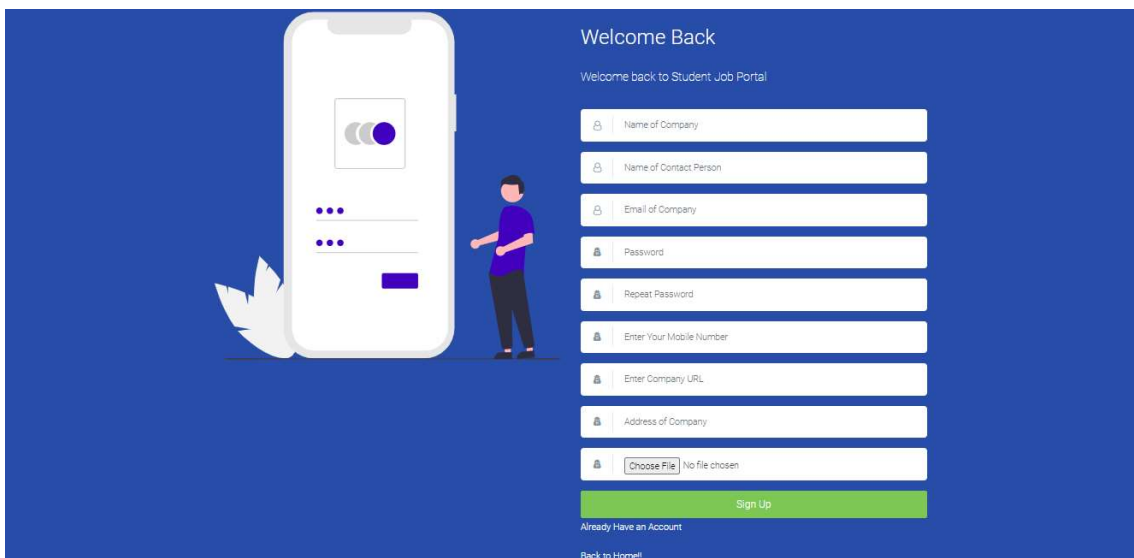
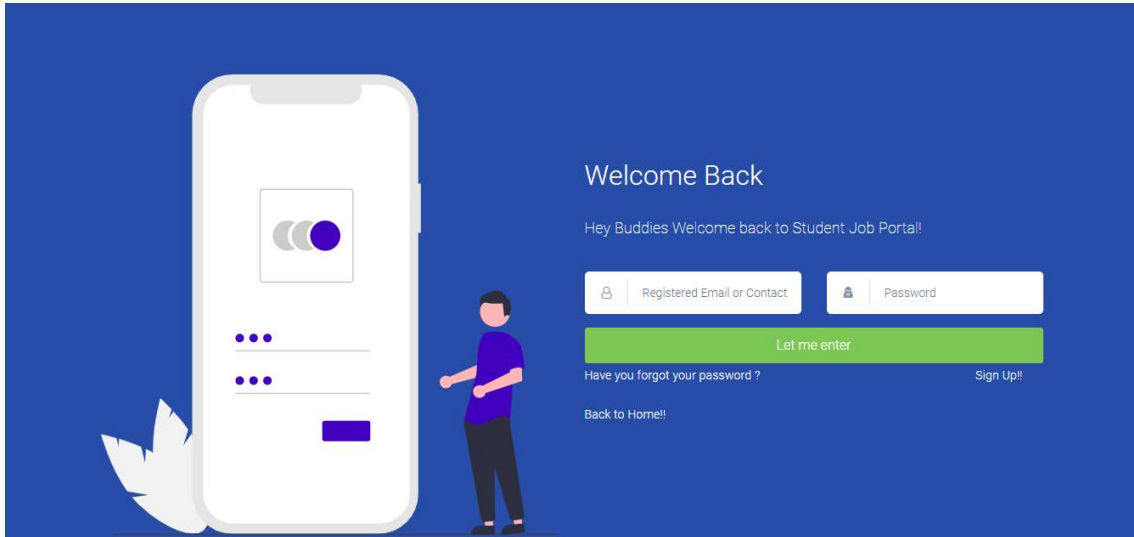


Figure 26: Sign up page for Company.

5.8 Employers Sign in



5.9 Latest job flow

Recent Jobs	
 Software Engineer, Senior Software Engineer, Module Lead HCL Pvt It 25 \$ 25k-35k/Month Noida 10-10-2020	DETAILS
 Sql Server Database Administrator Religare Pvt Ltd 25 \$ 10K-25K/Month H-321 Sector 4 Noida 19-09-2020	DETAILS
 SQL OEUFM Software TCS Pvt Ltd	DETAILS

Figure 28: Recent updated job list

5.10 Contact us

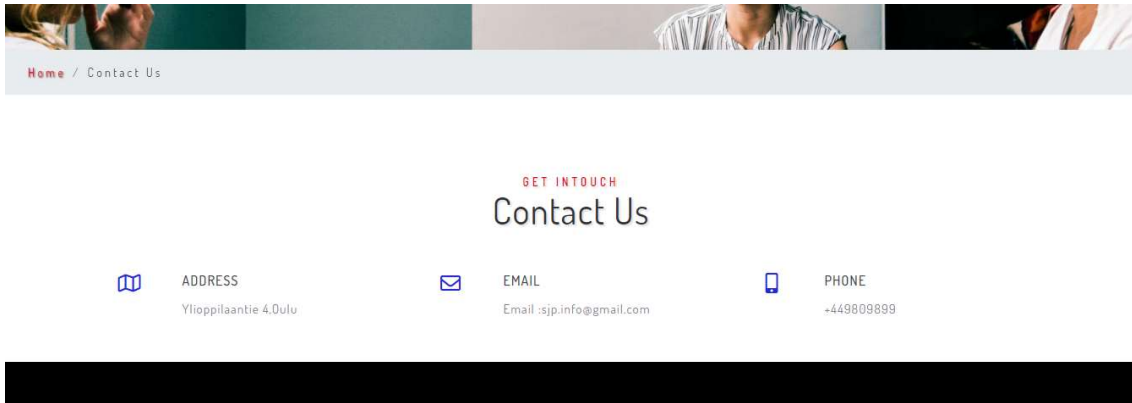


Figure 29: Contact us page

5.11 Job details

DETAILS OF
Jobs

Job Title	Software Engineer, Senior Software Engineer, Module Lead
Company Name	HCL Pvt It
Monthly In-hand Salary	25k-35k
Job Descriptions	Job Description Blue Prism Professionals Xavient Next- Gen Digital Solutions for Integrated Customer Experience Blue Prism Professionals - Total vacancies: 25 Proposed Designation: Software Engineer, Senior Software Engineer, Module Lead Description: Identifying and communicating the technical infrastructure requirements. Designing Blue Prism process solutions in accordance with standard Blue Prism design principles and conventions. Configuring new Blue Prism processes and objects using core workflow principles that are efficient, well structured, maintainable and easy to understand. Supporting existing processes and implementing change requirements as part of a structured change control process. Problem solving issues that arise in day to day running of Blue Prism processes and providing timely responses and solutions as required. Communicating with Blue Prism on software related issues, suggested improvements and participating with other users in the Blue Prism community.
Job Location	Noida
No of Opening	25
Apply Date	04-05-2020
Last Date	10-10-2020

[Apply Now](#)

Figure 30: Job details by companies

5.12 Selected Applications

The screenshot shows a dashboard titled "Selected Applications". At the top, there is a blue header with the text "Selected Applications". Below the header, there is a search bar and a "Show 10 entries" dropdown menu. The main content area contains a table with the following columns: S.NO, Job Title, Job Posting Date, Job Applied By, and Action. The table has one row with a "View Details" link. Below the table, there is a "Showing 1 to 1 of 1 entries" message and a pagination control with "Previous", "1", and "Next" buttons.

S.NO	Job Title	Job Posting Date	Job Applied By	Action
				View Details

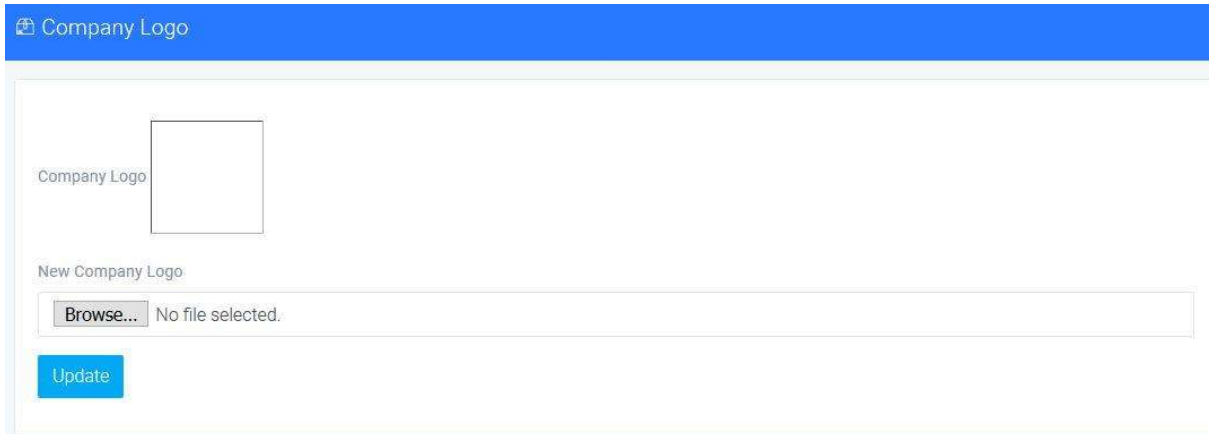
Figure 31: Selected application from company dashboard

5.13 Application count report

The screenshot shows a form titled "Application Count Report". It has two date input fields: "From Date" and "To Date", both with a placeholder "dd / mm / yyyy". Below the date fields is a blue "Submit" button.

Figure 32: Application count report for companies

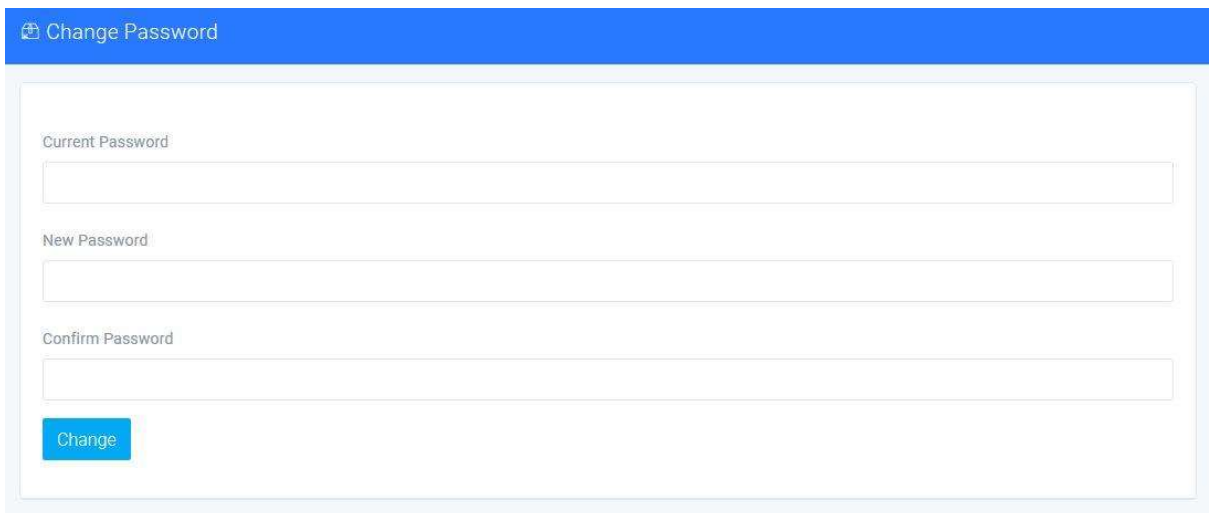
5.14 Change image



The screenshot shows a web interface for updating a company logo. At the top, there is a blue header bar with the text "Company Logo" and a small icon. Below the header, the main content area is white. On the left, there is a label "Company Logo" next to a square placeholder box. Below this, there is a label "New Company Logo" followed by a file selection area. This area includes a "Browse..." button and the text "No file selected.". At the bottom left of the form, there is a blue "Update" button.

Figure 33: Logo update for company

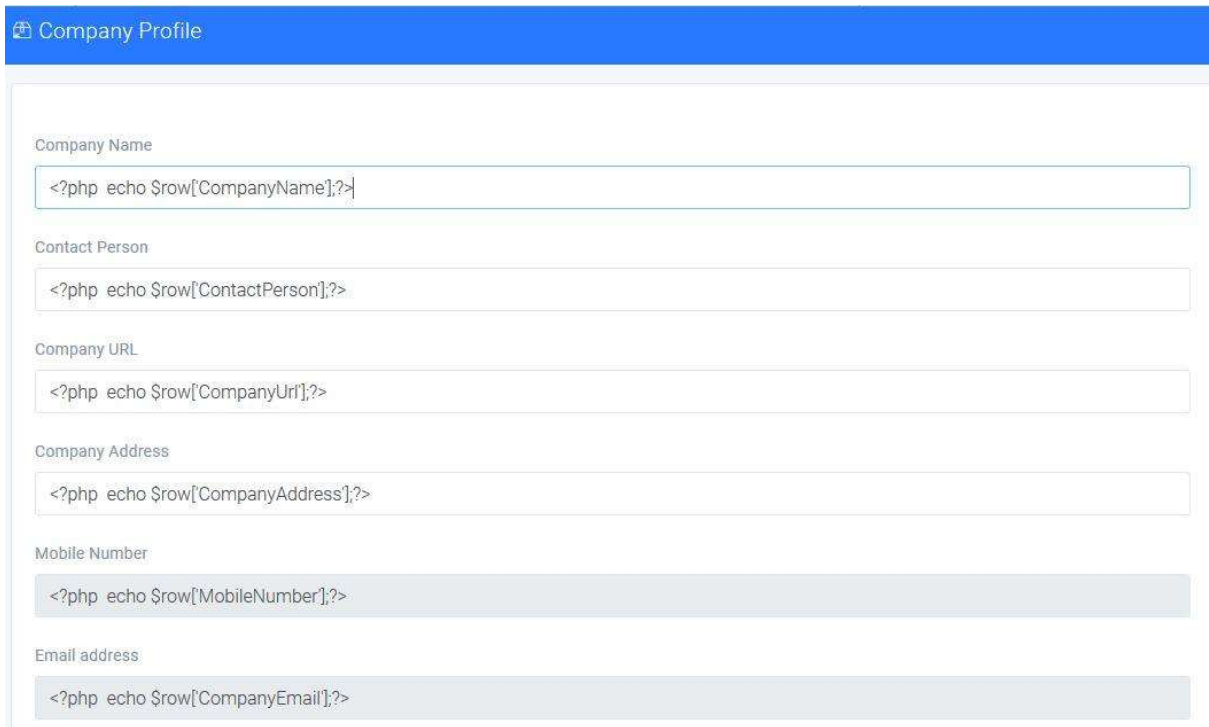
5.15 Change Password



The screenshot shows a web interface for changing a password. At the top, there is a blue header bar with the text "Change Password" and a small icon. Below the header, the main content area is white. It contains three input fields: "Current Password", "New Password", and "Confirm Password". Each field is a simple rectangular box. At the bottom left of the form, there is a blue "Change" button.

Figure 34: Password change page

5.16 Company profile



The screenshot shows a web form titled "Company Profile" with a blue header. Below the header, there are six input fields, each with a label above it and a PHP echo statement inside the field:

- Company Name**: `<?php echo $row[CompanyName];?>`
- Contact Person**: `<?php echo $row[ContactPerson];?>`
- Company URL**: `<?php echo $row[CompanyUrl];?>`
- Company Address**: `<?php echo $row[CompanyAddress];?>`
- Mobile Number**: `<?php echo $row[MobileNumber];?>`
- Email address**: `<?php echo $row[CompanyEmail];?>`

Figure 35: Company profile page

5.17 Company Dashboard

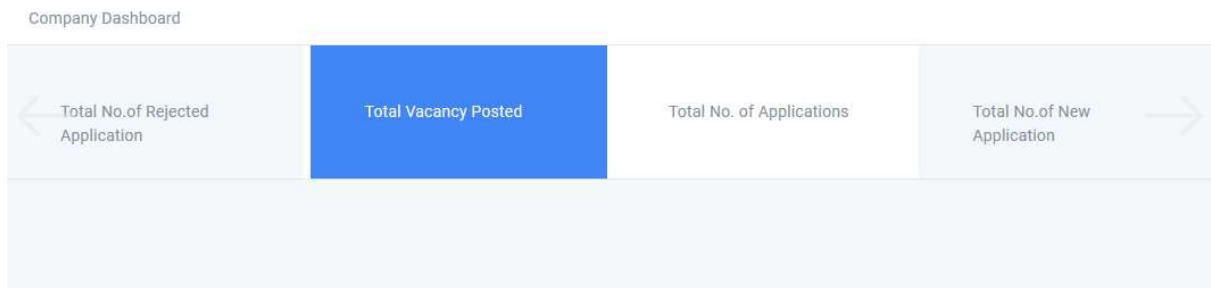


Figure 36: Dashboard of company

5.18 Vacancy update

Update Vacancy

Job Information

Job Title Monthly In-hand Salary

Job Descriptions

Job Location

No of Opening

Apply Date

Figure 37: Vacancy update

5.19 New Applications

New Applications

New Applications

Show entries

S.NO	Job Title	Job Posting Date	Job Applied By	Action
				View Details

Showing 1 to 1 of 1 entries

Figure 38: Checking new application

5.20 Rejected Applications

Rejected Applications

Rejected Applications

Show 10 entries

Search:

S.NO	Job Title	Job Posting Date	Job Applied By	Action
				View Details

Showing 1 to 1 of 1 entries

Previous 1 Next

Figure 39: List of rejected application

5.21 Sort Listed Applications

Sort Listed Applications

Sort Listed Applications

Show 10 entries

Search:

S.NO	Job Title	Job Posting Date	Job Applied By	Action
				View Details

Showing 1 to 1 of 1 entries

Previous 1 Next

Figure 40: Sort listed application

5.22 Vacancy Reports Details

The screenshot displays the 'Vacancy Reports' section of a web application. At the top, there is a blue header with the text 'Vacancy Reports'. Below this, the page title 'Vacancy Reports' is repeated. The interface includes a search bar on the right and a 'Show 10 entries' dropdown on the left. A table with the following columns is shown: S.NO, Job Title, Job Posting Date, and Action. The table contains one entry with an 'Edit' link in the Action column. At the bottom, there are navigation buttons for 'Previous', '1', and 'Next', and a status message 'Showing 1 to 1 of 1 entries'.

Figure 41: Vacancy reports

5.23 Application Details

The screenshot shows the 'Applications Info' section. It features a blue header with a back icon and the text 'Applications Info.'. Below the header, the page title 'Applications Info:' is displayed. The main content area is titled 'Information of Candidate' and contains a form with the following fields: Job Title, Monthly In-hand Salary, Job Descriptions, Job Location, No of Opening, Apply Date, Last Date, Full Name, Email, Mobile Number, Student ID, Gender, Address, Age, and DOB. There is an 'Image' field with a placeholder box and a 'Resume' field with a 'Download' link. A 'Candidate Education Details' link is also present. At the bottom, there is a 'Message History' section with a table containing columns for '#', 'Message', 'Status', and 'Time'.

Figure 42: Application information

5.24 Education Details

[View Education Detail](#)

View Education Detail

#	Board / University	Year	Percentage	CGPA
10th(Secondary)				
12th(Senior Secondary)				
Graduation				
Post Graduation				
Extra Curriculars				
Other Achivement/Certificate/Qualification				

Figure 43: View educational details of students.

6 CONCLUSION

The project called Students Job Portal Framework has been researched and evaluated in-depth to design and implement the code. It was done under Expert Project Guide guidance. All of the criteria and possibilities currently in place were taken care of during the project.

Both students and employers will get benefit from this job portal. Job Portal for Students is a platform that provides a student-business interface. It will save time and effort for both parties. The portal has been designed to increase the opportunity of students to get the appropriate job.

The filtering system is an automated process that will provide the employers all the required information about the applicants. The system will not behave like mindless HR to root out any applicant.

The portal is designed to be an autonomous or self-improving interface that helps keep a check on the updated information of both parties. It keeps the application ready all the time to send reminders to all the users frequently.

The program provides the students with a list of suitable companies according to students' educational qualifications, skills, and goals.

REFERENCES

About Node.js, Date of retrieval: 13 August 2020, <https://nodejs.org/en/about/>

Bootstrap 4 Tutorial, w3schools, Date of retrieval: 29 August 2020.
<https://www.w3schools.com/bootstrap4/default.asp>

CSS Syntax, w3schools, Date of retrieval: 27 August 2020.
https://www.w3schools.com/css/css_syntax.asp

Dose M & Lilja H., 2015, Page: 4-6, A schematic for comparing web backend application frameworks, 02 September 2020,
<http://publications.lib.chalmers.se/records/fulltext/219826/219826.pdf>

Get bootstrap, , Date of retrieval: 15 September 2020,
<https://getbootstrap.com/docs/4.4/about/overview/>

Horton W & Horton K, 2003, E-learning Tools and Technologies: A consumer's guide for trainers, teachers, educators, and instructional designers, Date of retrieval: 02 September 2020, <https://books.google.fi/books?isbn=0471456780>

How to Choose Website Colour Schemes? , Date of retrieval: 19 August 2020,
<https://websitesetup.org/website-color-schemes/>

HTML Tutorial, w3schools, Date of retrieval: 30 August 2020.
<https://www.w3schools.com/html/>

jQuery Tutorial, w3schools, Date of retrieval: 29 August 2020.
<https://www.w3schools.com/jquery/default.asp>

Mening R, 2018, WordPress vs Joomla vs Drupal (comparison), 13 July 2020,
<https://websitesetup.org/cms-comparison-wordpress-vs-joomla-drupal/>.

Mikoluk K, 2014, How to use XAMPP to Run Your Web Server, Date of retrieval: 13 July 2020, <https://blog.udemy.com/xampp-tutorial/>.

Nedelcu, Clément. Nginx HTTP Server, Packt Publishing, Limited, 2013, Date of retrieval: 23 August 2020
ebookcentral.proquest.com/lib/copbooks/detail.action?docID=3027386

PHP Tutorial, w3schools, Date of retrieval: 30 August 2020.
<https://www.w3schools.com/php/default.asp>

Tree-structure of backend development, 2020, Date of retrieval: 13 August 2020,
codeburst.io

What is a web server ?, Date of retrieval: 13 July 2020, https://developer.mozilla.org/en-US/docs/Learn/Common_questions/What_is_a_web_server.

10 Features Every Career Portal Should Have Today, Date of retrieval: 23 August 2020, <https://www.entrepreneur.com/article/312441>

