LONDON METROPOLITAN UNIVERSITY

ITAHARI INTERNATIONAL COLLEGE

Module Code & Module Title

FC6P01NT- Final Year Project

Assessment Weightage & Type

Final Report (70%)

Year and Semester

2020-21 Autumn, Year Long

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Assignment Submission Date: 26/04/2021

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Title: Internship Web Portal

I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be award mark of zero will be award.

Abstract

In the era of new technology, Internet has already been an integral part of our life. Web applications are an essential component of our everyday life in this modern world. There are various kinds of web applications which people are using for connecting people all over the world, doing online shopping, e-banking, etc. This report is written based on a web application, 'Internship Web Portal'. With the help of this application, students will be able to know about internship vacancy, company information, skills requirements for applying for an internship. This project falls under the part of the final report for the final year project. This document showcases the introduction, background, development, and further planning of the project. A suitable methodology for the project will be selected, and tasks will be carried out in accordance with the methodology for the creation of this application, as defined in this study. It represents the overall research done before the development of the project. All technical terminology, programming languages, and frameworks that will be used to construct this application are also discussed. As a result, this report includes the project's requirements, design, and implementation phases, as well as future plans.

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Chapter 1: Introduction

1.1 Project Description

Web applications are an essential component of our everyday life in this modern world. There are various kinds of web applications which people are using for connecting people all over the world, doing online shopping, e-banking, etc. This project is a web application which is created as "Internship Web Portal" to help students to get hired for internships in renowned companies and know the vacancy for internships. With the help of this application, students will be able to know about internship vacancy, company information, skills requirements for applying for an internship. In a student's life, an internship plays an important role in gaining valuable work experience with developing and refining skills for a better career in related fields. This web application is for those students who are willing to do an internship. This web application allows companies to register and post the internship vacancies for free. It allows the company to edit, update, and delete the information of vacancy. With the help of this application students can search for an internship vacancy, apply for the vacancy online which saves a lot of time. This web application is useful for both company and students.

1.2 Current Scenario

Visualizing the current use of technology, the majority of the population uses the Internet. Majority of Nepalese students have access to the internet. Although having access to the internet, students from bachelor's degree or master's degree must search for an internship by visiting companies. There is a lack of online services for finding internships for students. There are some websites and other social media pages which claim to provide internship information. But many of them provide less information regarding the internship and companies. Some websites never update the latest information, and some provide fake information which creates difficulties for students in finding the internship opportunities. Due to lack of proper and free online services students and companies are facing problems in hiring interns and finding intern placement.

1.3 Problem Domain and Project as Solution

All the final year students should do internships to exposure the real-time working environment in any company which is related to their field of study. Students are having trouble finding internships and knowing about internship vacancies. Since they must visit the company to know about the internship vacancies which consume a lot of time. Students are facing difficulties to know about the internship vacancies nearby them due to a lack of information. Some websites claim to show the internship vacancies, but they provide less information and data needed. Students who are willing to do an internship face fake information issues because sometimes companies do not post internship opportunities on their personal websites as students search for information manually on the company's websites.

A survey is taken among about 30 final year students who have faced problems while searching for internships. With the help of survey, the problems that a student had faced or might face in future are recorded as shown in figure below.

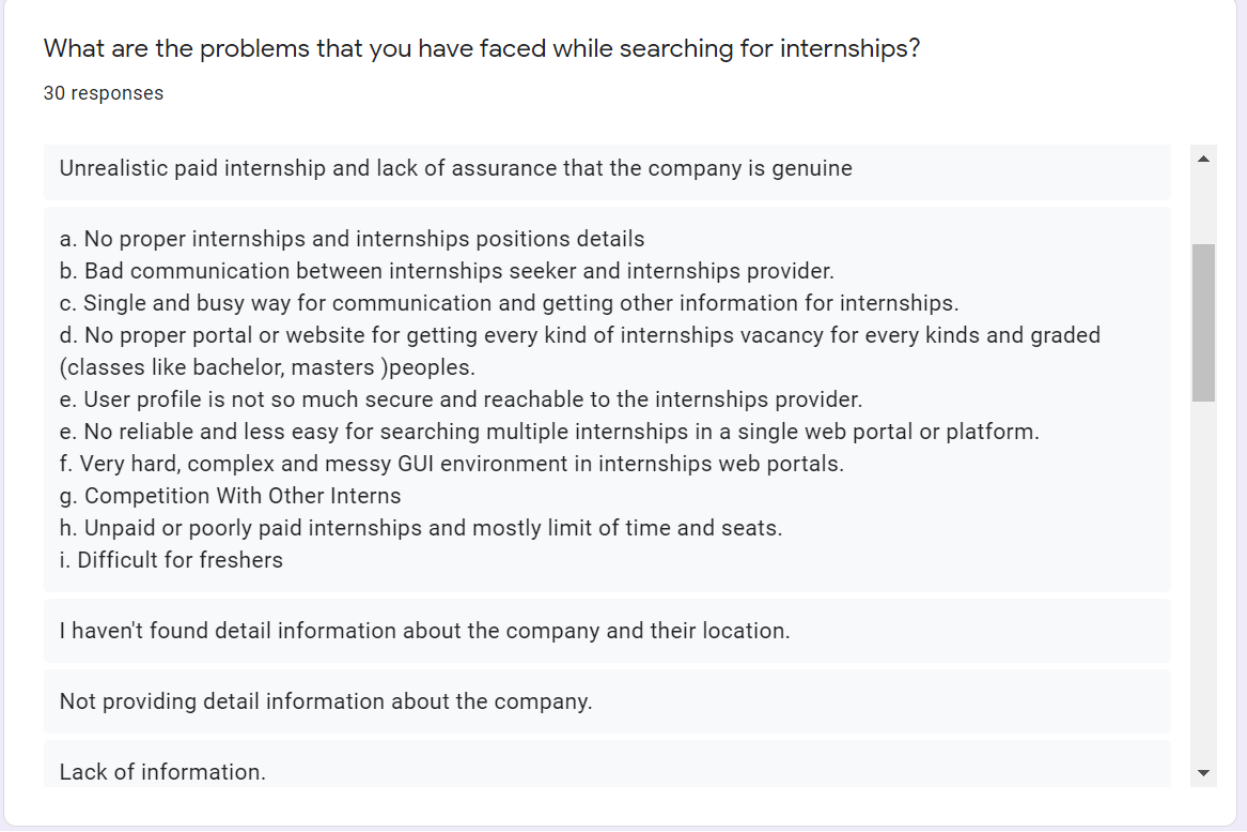

Figure 1: List of problems faced by students while searching for internships (Survey,2020)

These are the problems raised among the students as a part of the survey and were asked to fill their perception in it.

Hence, analyzing the above challenges and problems faced by the students while searching internship, internship web portal is to be developed which solve those problems. I found out that there are no online platforms that provide students with proper information on internship opportunities. So, I have decided to create a user-friendly web portal that allows the companies to post information about internship information and students to search for internship opportunities.

Project as a Solution

This project is created as the ultimate solution of the problems that are raised by students while searching for internship opportunities. This web portal can help both students and companies to get and provide internships. This web application will be able to display all the internship vacancies available with requirements skills and company information. Students can apply for an internship as per their area of interest. This web portal allows the company to post about the vacancy and requirements where students can apply for an internship in the company. The students can search for internship vacancies according to the cities.

1.5 Aim and Objectives

The aim of this project is given below:

To develop a user-friendly web application platform which will allow students to get hired for internships in the field of study they are interested in and companies to post their internship vacancy information. On the students' side, they can see all the best companies in Nepal in one place with internship vacancies and they can apply for internships as per their interest. On the companies' side, they will have a marketing platform to improve public visibility, post vacancies, and reach a larger number of students.

The major objectives of this project are as follows:

- Students will be able to see all the internship vacancies with company information and skill requirements and can easily apply for an internship.
- Students will be able to search for preferable internship opportunities according to the location.
- Allow the company to post vacancies and reach out to a larger number of students without spending money on the advertisement of vacancy.
- Once the students successfully applied for an internship they may be notified through mails or call if they are selected for the internship.

1.5 Structure of the report.

1.5.1 Background

The project's background consists of a discussion of an overall research on the subject. It includes the information about the client and the end users of the application. There is also research and analysis on similar systems, as well as a comparison of their features with our system to be created.

1.5.2 Development

The development includes a discussion of the various methodologies that were considered, as well as a selected methodology with justification for the methodology chosen. The chosen software development approach is defined, followed by a brief description of each phase. This chapter includes requirement analysis and UML diagrams such as Use case, DFD Diagrams, sequence, and communication diagrams. Then the pre survey and post survey results are explained in the survey results sub-section of the report.

1.5.3 Testing and Analysis

The report's testing portion includes test cases and screenshots of the various features being evaluated. The results of the project's tests are then shown alongside the proofs. This chapter also includes a critical review of the testing performed.

1.5.4 Conclusion

This chapter provides a description of the research. It contains important discussion of legal, social, and ethical issues that may be faced by the system. The project benefits and limitations are also discussed in this chapter. Finally, this chapter discusses further possible works that will make this application much more successful and secure.

Chapter 2: Background

2.1 About the End User:

This project proposes a web-based internship application that is primarily used by students who are willing to take an internship. As I have done research and various surveys among the students, I gathered various forms of problems faced or might face while finding the internship in interested fields. I found that students prefer searching for internship vacancies in websites or social media rather than visiting companies. After research I found the importance of developing this application which could solve various problems faced by students while finding best intern placement. I succeeded in gathering the requirements and features of a web application which could solve the problems like lack of proper information about new vacancies including company information, user friendly design and including local companies.

2.2 Understanding the Solution.

The problems raised from the survey encourages me to develop a web application as a solution for each problem. This web application will solve the problems by allowing both students and companies to get and provide internships. This web application will be able to display all the internship vacancies available with requirements skills and proper company information. This web portal allows the company to post about the vacancy and requirements where students can apply for an internship in the company. This application will try to cover all types of internship including sufficient information. This application will be more user friendly. This web application will be 24 hours accessible and can manage the information in better ways. This application will avoid chaos in registering new users and users can directly register and login to the system.

2.3 Similar Projects

Before the development of this web portal, I did research on various web applications that are available in the market which is similar to this project that are helping students to find better internship placement.

2.3.1 NRS Karmakar

NRS Karmakar is a multi-featured website which allows the students to search for an internship at their dream company as per their requirement. And on the other side, NRS Karmakar enables the company to find the right interns as an employer. NRS Karmakar is there to ease the whole internship process for both parties – students/graduates and the company (NRS Karmakar, 2018).

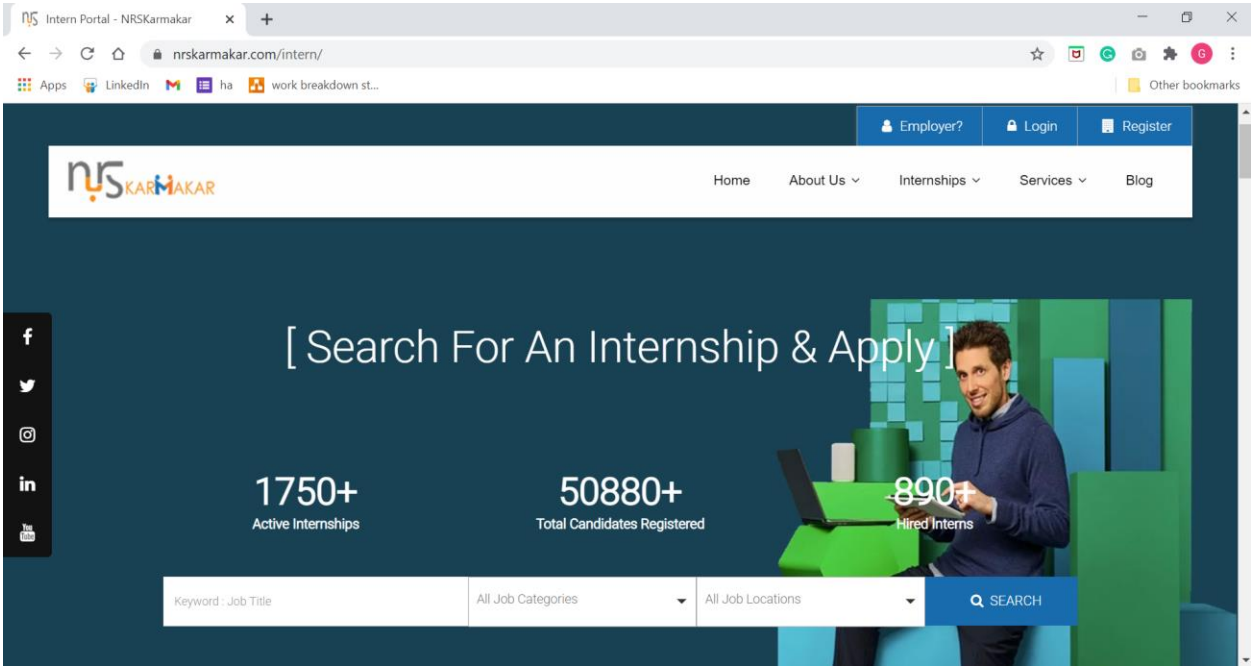

Figure 2: NRS Karmakar Web App.

As per my analysis, it is a very broad and popular website whose positive aspects are its wonderful features which a user can enjoy. The featured services of this project are training, interview tips, career advisory, expert speak and skill sessions.

2.3.2 Jobejee

Jobejee is the fastest growing job portal in Nepal. With the Jobejee website and application, people can search and apply for jobs with optimal ease and also have a stress-free application period. People can search among thousands of jobs from top companies, industries and locations of their choice. Jobejee's advanced features allow people to find their perfect job within minutes and apply for it with a single click (Jobejee, 2017).

Features of Jobejee are:

- Find all your Newspaper Jobs in a single, searchable space.
- Receive relevant Job Recommendations.
- Create customized Job Alerts.
- Tracks Application Status.

2.3.3 JobsNepal.com

JobsNepal.com, the largest locally focused employment website in the nation. The mission of this portal is to lead the Internet employment industry in Nepal by providing innovative information, superior resume management software and a comprehensive selection of services.Jobsnepal.com offers services to the recruiting and job-seeking community in Nepal (jobsnepal.com, 2000).

Features of JobsNepal.com are:

- Users' friendly interfaces.
- Easy to apply for jobs.
- Provides detailed information about the company.
- User-friendly search function with great selection of filter features.

2.4 Comparisons

The comparison of the similar system are as follows:

Name of similar application	**Positive Analysis**	**Negative analysis**	**Features taken or consider in my project**
1. NRS Karmakar	It provides an overall description of the companies and their vaccines.	It does not cover local areas and does not promote local companies.	Can be a good source of data regarding the name of companies and other required descriptions for internship.
2. Jobejee	People can search among thousands of jobs from top companies, industries, and locations of their choice.	Has small scope for internship and it mainly focuses for jobs placement only.	Search filter according to places, relevant vacancies recommendations
3.JobsNepal.com	It provides innovative information, superior resume management software and a comprehensive selection of services.	Covers only major cities of our country	Attractive and user-friendly interfaces, search function with great selection of filter features

2.4 Technical aspects

This section of this report explains the review of different software and hardware technologies used or will be used for the development of internship web portal application as proposed by this project.

Programming Languages

HTML

Hypertext markup language (HTML) is the major markup language used to display Web pages on the Internet. It provides a means of creating organized documents by denoting structural text semantics such as headings, paragraphs, lists, links, quotations, and other objects. It can embed scripts written in languages such as JavaScript that affect the behavior of HTML web pages (Christensson, 2015).

CSS

CSS is the language used to define the presentation, including colors, layout, and fonts, of Web pages. It enables one to adapt the presentation to various computer types, such as large screens, small screens, or printers. CSS is HTML independent and can be used for any XML-based markup language. Using CSS, you can monitor the text color, font type, paragraph spacing, column size and layout, background images or colors used, layout styles, display variations for various devices and screen sizes, and several other effects (Tutorialspoint, 2018).

JavaScript

JavaScript (JS) is a scripting language, primarily used on the Web. It is used to enhance HTML pages and is commonly found embedded in HTML code. JavaScript is an interpreted language which renders web pages in an interactive and dynamic fashion. This allows the pages to react to events, exhibit special effects, accept variable text, validate data, create cookies, detect a user's browser, etc (techopedia, 2017).

PHP

PHP (hypertext pre-processor) is an extremely popular programming language in terms of web development which is also chosen by me for my web application development. It has a large community, and PHP codes are clear and easy to understand. The responsiveness of websites and applications developed using PHP frameworks allows businesses to meet their performance needs as PHP frameworks speed up the development process (Tutorialspoint, 2019). A good advantage of using PHP is that it can work with many different database languages, including the MySQL I used in this project.

Laravel

Laravel is one of the world's most common PHP frameworks used to create web applications from small to large projects. Laravel is a choice of professional developers as well as my choice due to its performance, features and scalability (tutorialspoint, 2019). I chose Laravel as my core framework for my project because it can manage complex web applications securely, at a much faster speed than other frameworks. Simplifies the development process by easing common tasks such as routing, sessions, caching, and authentication.

Visual Studio Code

Visual Studio Code is a lightweight but efficient source code editor which is available for Windows, MacOS, Linux and comes with built-in support for JavaScript, TypeScript and Node.js, and has a rich ecosystem of extensions for other languages such as C++, C#, Java, Python, PHP, Go and runtime such as .NET and Unity (Seattle, 2019). I have used this code editor for creating this project due to the features of syntax highlighting, intelligent code completion, snippets, code refactoring, and debugging provides extensive support to write the code efficiently.

Chapter 3: Development

3.1 Considered Methodologies.

During research on the methodology acceptable for this project, multiple articles, journals, websites were visited, and the following methodology was discovered that could be considered.

3.1.1 Waterfall Model

The waterfall approach is a rigid linear model consisting of sequential phases focusing on different goals (requirements, design, implementation, verification, maintenance). This approach is very easy to understand and use where it is necessary to complete each phase before the next phase can begin and there is no overlap between the stages (Tutorials Point, 2018).

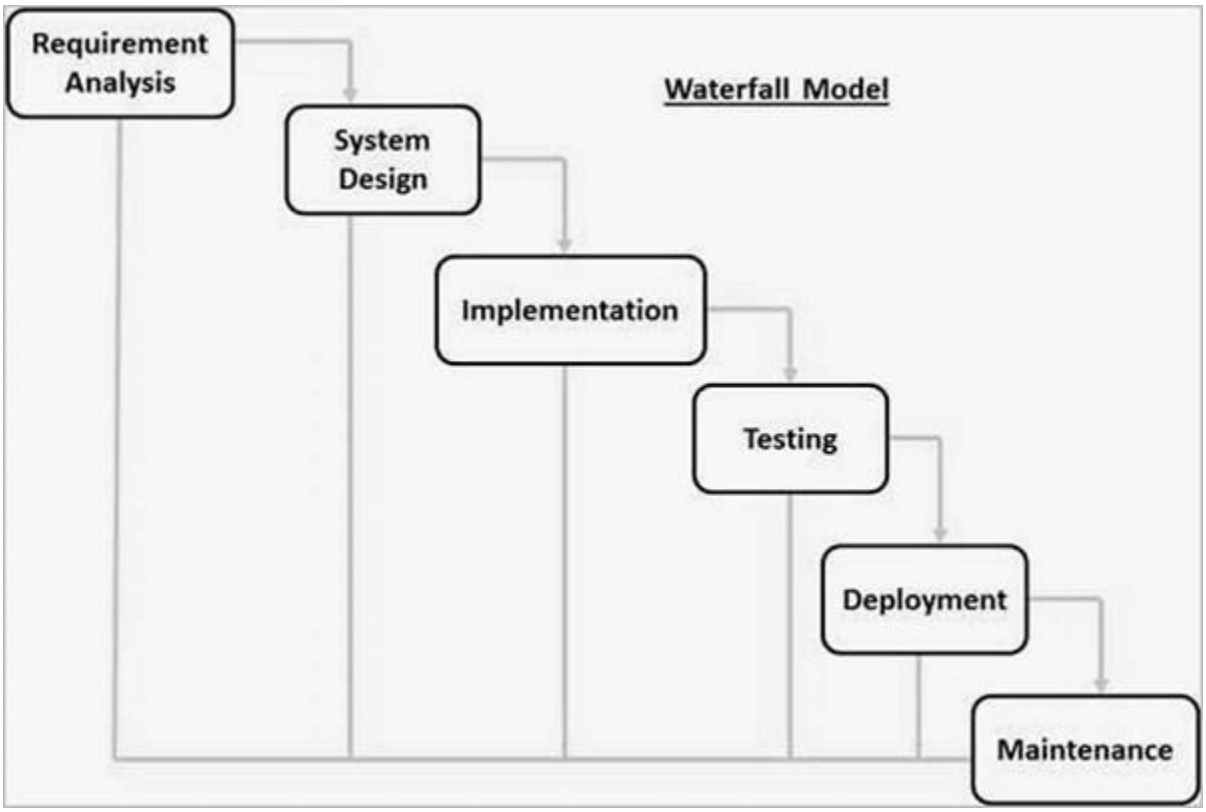

Figure 3: Waterfall model.

I have considered this model because it uses clear structure, determines the end goal early, transfers information well which allows me to organize tasks easily, and gather proper requirements for the project. Due to proper documentation and easy use of this model, it defines consistent milestones and deadlines which support to confirm the quality of the project (Kienitz, 2017).

This model is only used for smaller projects where the requirements are known in advance, clear and not intended to change in the future. It is very difficult to go back and change something that is left during the requirement analysis phase when the product is in the testing stage. Bugs and errors are not found in early phases which leads to the failure of the projects that is why this model is not used for development.

3.1.2 Scrum Methodology

A scrum is an agile approach to development used in software development focused on iterative and incremental methods. Scrum is an adaptable, fast, scalable, and efficient agile system designed to provide value to the client during the project's development. Scrum's primary goal is to meet the requirements of the customers in an environment of clarity in communication, mutual accountability, and continuous improvement (Digité, 2019).

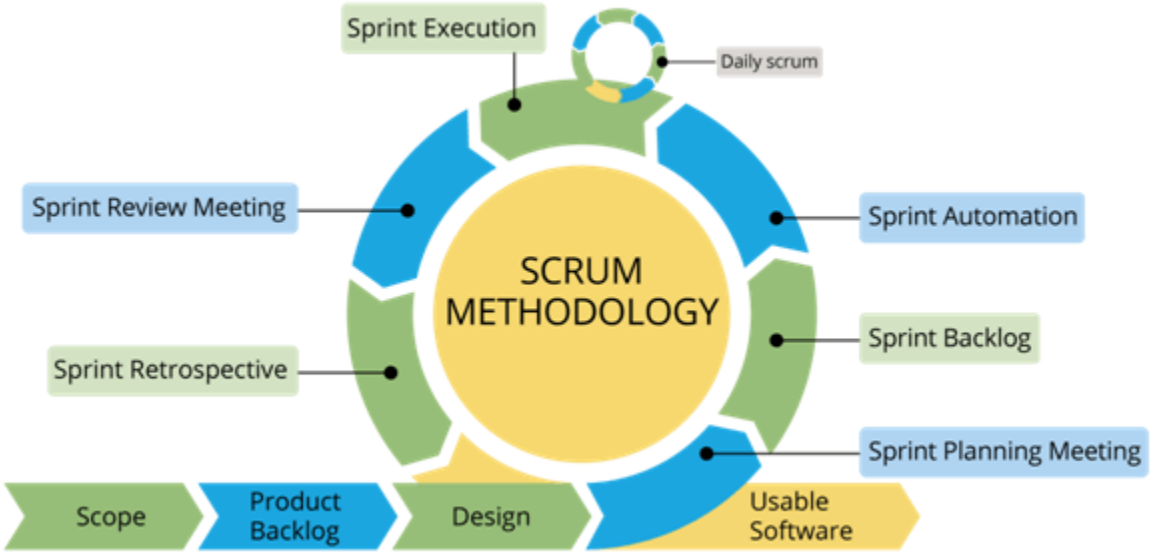

Figure 4: Scrum Methodology.

I have considered this approach based on its analytical approach focused on flexibility and adaptivity, creativity, time-to-market, improved quality, customer satisfaction. It adopts changes in our application that might include or exclude features as per the user feedback and perception gathered from different surveys (Chandana, 2020).

In spite of good properties and features of this methodology, it couldn’t be implemented in my project. Scrum is recommended to apply for quick and small tasks that are not feasible for me in

this application. It required teams for development which is not possible in this project. The documentation of this software development approach is complicated and time consuming, which leads me to deny this methodology.

3.1.2 Evolutionary Prototype Model

Prototyping Model is a model for software development in which a prototype is constructed, tested, and reworked until an acceptable prototype is achieved. In this approach, prototypes are regularly produced, and each prototype is polished with additional features or functions until the products do not meet client requirements (T, 2020).

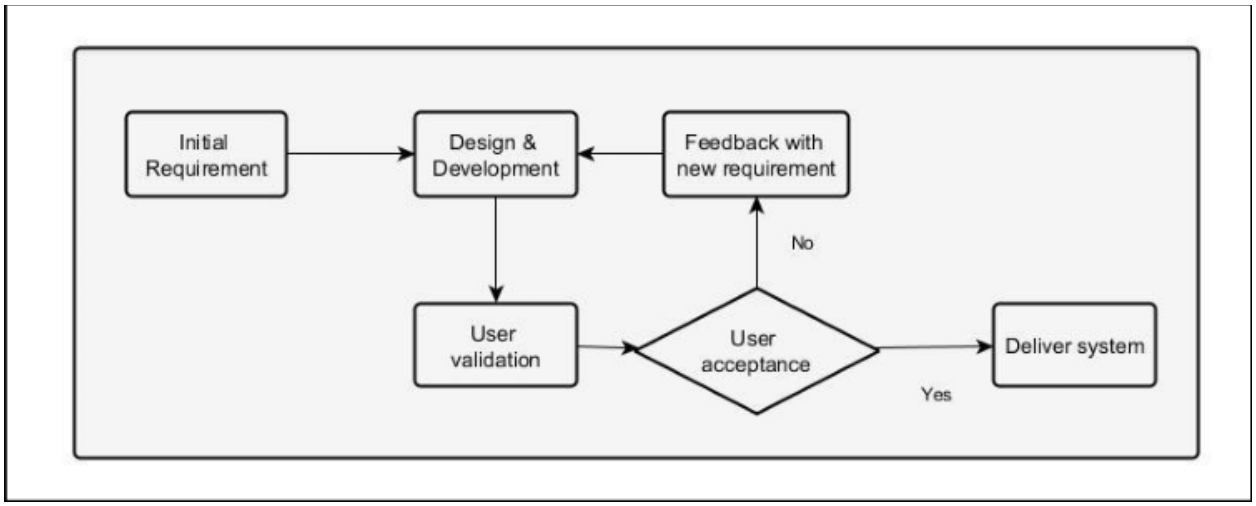

Figure 5.Evolutionary Prototype Model.

This methodology was considered to be used as the methodology for following reasons: When a prototype is shown to the clients, they get a clear understanding of the functionality of the software and a complete sense of it. This methodology gives clear ideas about the software's functional process. This method reduces the risk of failure significantly because potential risks can be identified early on and moderation steps can be taken quickly (Guru99, 2018).

The main reasons for rejecting this model are that the evolutionary prototype is unknown about the requirements and encourages excessive change requests. Poor documentation because the requirements of the customers are changing the completion date of the project. Thus, it is not suitable for the project where the deadline is fixed.

3.2 Selected Methodology

RUP Methodology

This is an iterative software development process initially produced by Rational Software Corporation that IBM acquired in 2003 which offers a structured approach to assigning roles and responsibilities within a production organization with the goal of ensuring that the creation of high-quality software meets the needs of its end-users within a consistent timeline and budget (Master2Teach, 2019).

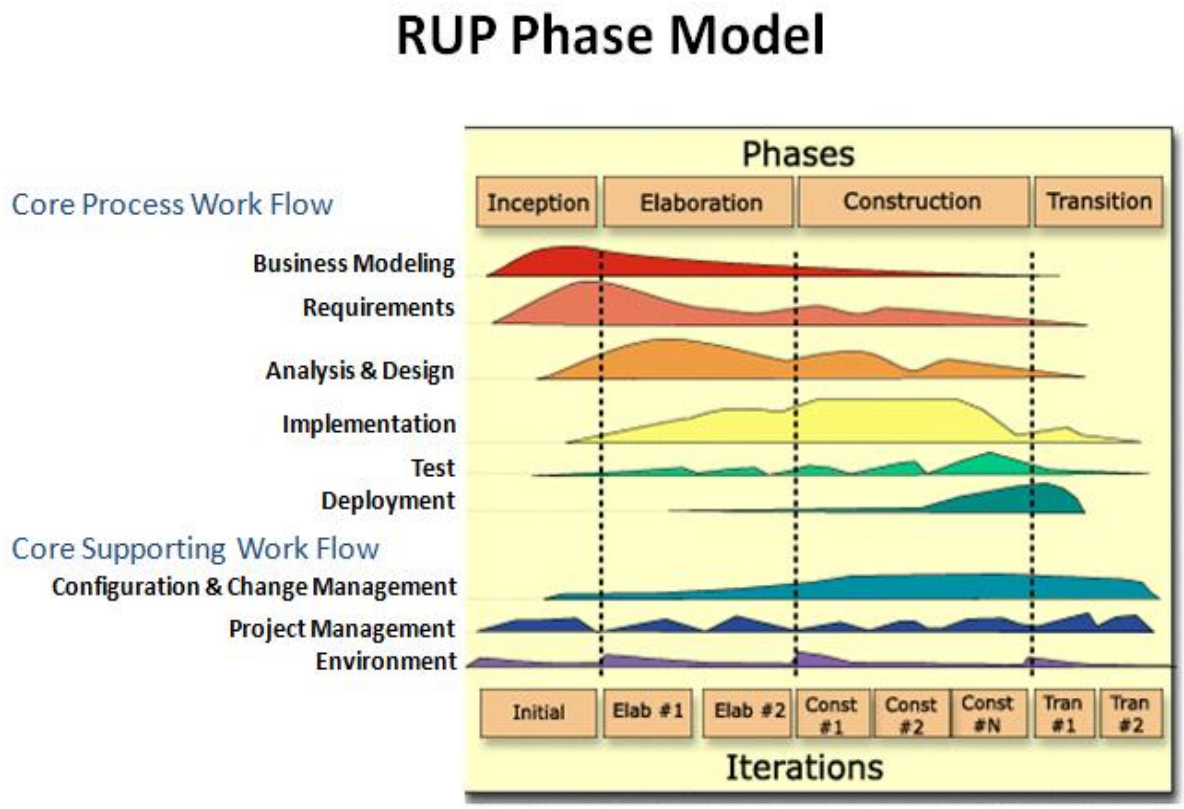

Figure 6:RUP Model.

RUP splits the process of development into four different stages, each involving market modeling, research and design, implementation, testing and deployment. The four phases are given below:

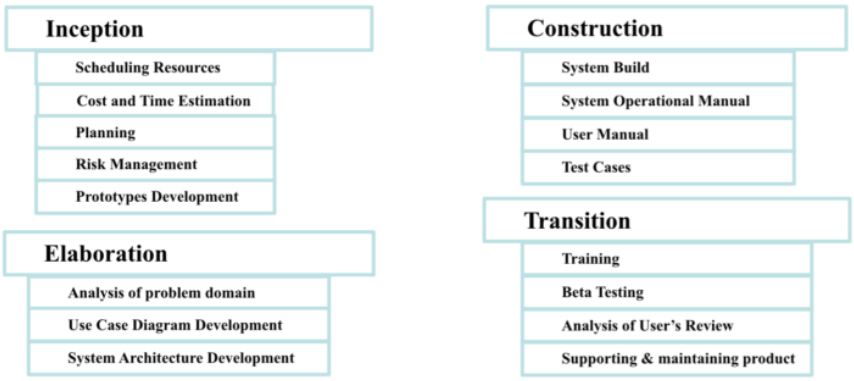

Figure 7: Phases of RUP Model.

For each phase of the development process, it includes a clear strategy that helps avoid wasting of resources and decreases unforeseen development costs. Because of the following benefits I have chosen RUP methodology:

- It helps to cope with evolving requirements, regardless of whether they come from the client or from the project itself.
- It emphasizes the need for accurate documentation.
- It enhances control of processes and risk management.
- This enables us to deal with evolving demands during the project's development life cycle as per the needs of the client or customer, i.e., it welcomes change.
- It supports incremental build of the software product.

3.3 Phases of Methodology

3.3.1 Inception

The proposed system is reviewed and critically analyzed at this phase, and it is determined whether the system can be completed in the time allotted or not. It is determined whether the proposed system will assist in uprooting and addressing the issue that students are currently experiencing while finding internships. Several meetings and surveys with the supervisor and the final year students were held to determine the project's feasibility. The problems prevailing in the students regarding searching for internship was collected through surveys which included suitable questionnaires. Various system features were determined and finalized as a result of the survey. The proposal for the development was finalized and plans for the development were set at the end of this process.

3.3.2 Elaboration

Following the initial finalization of the project proposal, I critically analyze all the project's identified features. Methodology to be followed was chosen and various UML diagrams which included Use Case diagrams, High level use case diagrams, Sequence diagrams, Collaboration diagrams, and Data Flow diagrams were designed. The proposed project was designed and analyzed during this process of methodology. After the completion of UML diagrams, initial wireframes, a Gantt chart was created which specifically aided me in visualizing the project and efficiently working on the system's progress.

3.3.3 Construction

In this phase, the implementation of the resources and requirements justified in the inception and elaboration phases was involved. The proposed project was developed, tested and documented. Each project feature is explained and divided into several modules in order to progress the project. This method helped me to concentrate on a single task rather than multitasking. Firstly, I had designed the frontend and database of the project then the database was added and integrated with the program with backend development. Testing is carried out as the project progresses. This stage includes both white-box and black-box testing of the established code. The development and testing phases are properly recorded at the same time.

3.3.4 Transition

The proposed system is checked after the construction process to ensure its accuracy and correctness. The final version of the application will be deployed to the end-users with proper user manuals and documentation. The suggestions and feedback from the user about the system will be collected and analyzed. After the feedback has been processed, modifications will be made, and the product will be updated accordingly.

3.4 Survey Results

3.4.1 Pre-survey Results

Prior to system implementation, a pre-survey is conducted to gain an initial understanding of how the system's end-users will think about and view the project's proposed concept. It assists us in finalizing and ensuring all aspects of the system's functionality and design. Furthermore, the responses offered some significant benefits and improvements to the system that was being built.

Appendix: (Appendix A: Pre-Survey)

3.4.2 Post-survey Results

Post survey is taken subsequently using the application by the end-user. This survey aids in determining the efficacy of the system's various features and functions. You will find the questionnaires and answers that were obtained in the appendix:(Appendix B: Post-Survey).

3.5 Requirements Analysis

Hardware requirements:

Since this project is a web portal application, there are no special hardware specifications for loading or accessing it. Each part of this web application can be rendered by any modern browser. Some requirements for running this web application are a laptop or desktop computer with good and stable internet connection with modern browsers such as: Google Chrome, Firefox, Brave, Safari. Minimum hardware requirements for hosting this web application are Intel or any other processor with 2 GB RAM and about 5GB of storage. Software requirements for hosting this web application are Operating Systems (such as Windows, Linux, or Mac) with a minimum version of php 6 and Latest version of Laravel.

Feature Requirements

There should be an internship management module which allows companies to add, edit and delete the internship details. Companies should be able to view applications and send feedback. The student users should be able to view, search and apply for the internship. This application should have a database for storing all the necessary information.

3.6 Design

3.6.1 Use Case

A UML Use Case diagram is a primarily a graphical depiction of a system or a software requirement during its underdevelopment. The use case specifies the specific behavior and interaction among elements of the system (Study.com, 2019).

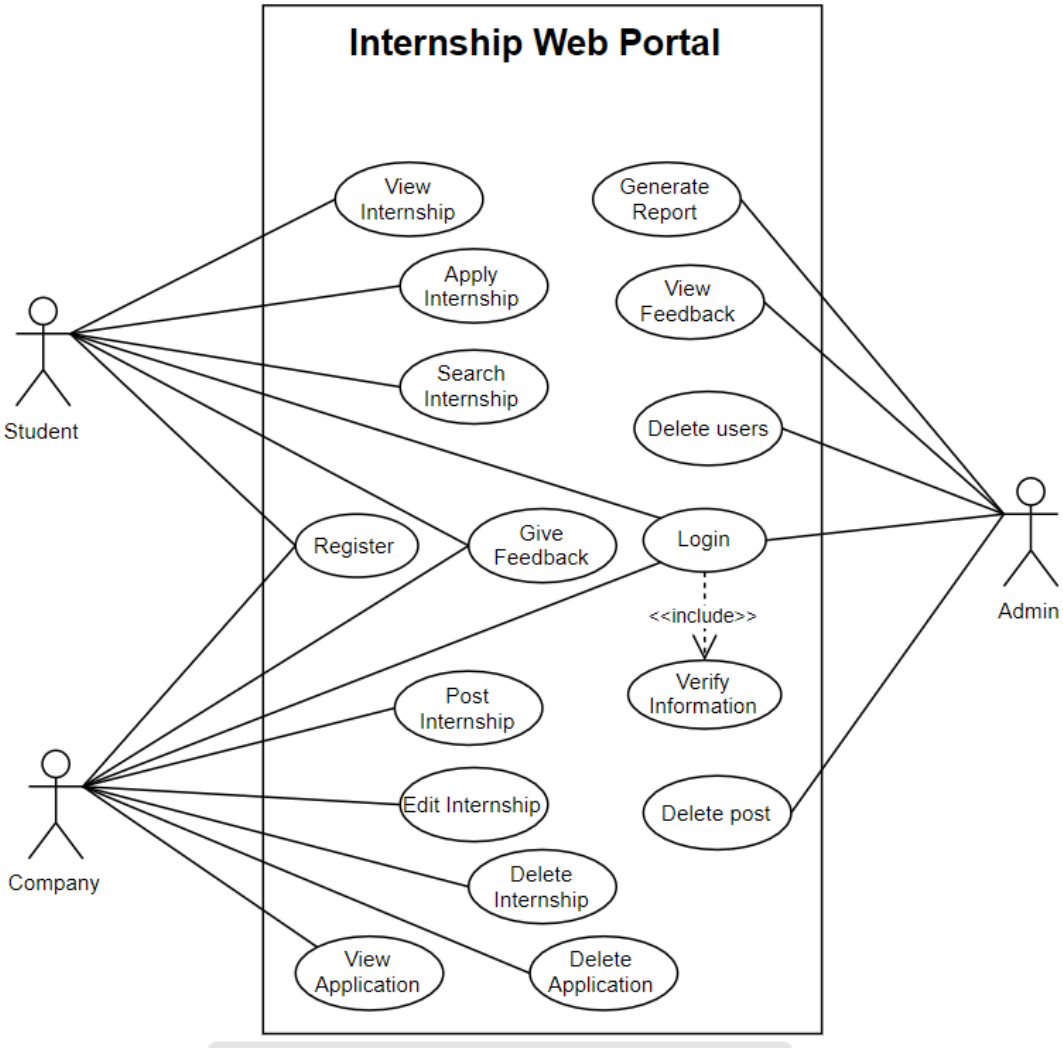

Figure 8: Use Case Diagram.

3.6.2 Expanded Use Case

3.6.2.1 User Registration

Use Case: Registration

Actor: Student, Company, System

Description: The student or company inserts necessary fields to register himself/herself to the application.

As Student:

Student Action	System Response
1. The student fills out an on-screen registration form with personal information, including a username and password for login.	
2. Clicks on Register button	3. Verify all the user input in the fields.
	4. System records information.
	5. Confirm registration of the customer.

Table 1: Student Registration Expanded Use Case

Alternative: Line 3: If the inserted data are incorrect or missing. Use case ends.

As Company:

Company Action	System Response
1. The company fills out an on-screen registration form with personal information, including a username and password for login.	
2. Clicks on Register button	3. Verify all the user input in the fields.
	4. System records information.
	5. Confirm registration of the customer.

Table 2: Company Registration Expanded Use Case

Alternative: Line 3: If the inserted data are incorrect or missing. Use case ends.

3.6.2.2 Login

Use case: Login.

Actor: Student, Company, System

Description: The registered user logs into the system using username and password. The system verifies the password and username inserted. The process is completed when the login page is directed to the home page and dashboard respectively for the student and company of the application.

As Student:

Student Action	System Response
1. The student uses on-screen login form to insert username and password.	
2. Clicks on Login button	3. Verify username and password.
	4. Redirect to the home page.

Table 3: Student Login Expanded Use Case.

Alternative:

Line 3: Username or password entered is incorrect. Use case ends.

As Company:

Company Action	System Response
1. The company uses on-screen login form to insert username and password.	
2. Clicks on Login button	3. Verify username and password.
	4. Redirect to the company home page.

Table 4: Company Login Expanded Use Case

Alternative:

Line 3: Username or password entered is incorrect. Use case ends.

3.6.2.3 Add Internship Vacancy

Use case: Add Internship Vacancy

Actor: Company, System

Description:

The registered company logs into the system and clicks on the add vacancy button to add internship vacancy in the system.

Company Action	System Response
1. The company login into the systema and click on the add vacancy button.	
2. Fills out registration form and submits the form.	
	3. Verify the required field in the form.
	4. Store the vacancy details.

Table 5: Add Internship Vacancy Expanded Use Case.

Alternative:

Line 4: Company does not fill the required fields in the form, error messages are displayed. Use case ends.

3.6.2.4 Edit Internship Details

Use case: Edit Internship Details

Actor: Company, System

Description: The company logs into the system and chooses the internship vacancy to edit details.

Company Action	System Response
1. The company login into the system and click on view post button.	
2. Choose the respective vacancy and Clicks on Edit Button.	
	3. Displays the form prefilled with previous details
4. Changes the detail and clicks Save button	
	5. Verifies the inputted fields.
	6. Stores the update vacancy details.

Table 6: Edit Internship Details Expanded Use Case.

Alternative:

Line 5: Data inserted is incorrect or the required field is empty. Use case ends.

3.6.2.5 Delete Internship Details

Use case: Delete Internship Details

Actor: Company, System

Description: The owner of the company logs into the system and selects his/her internship vacancy to be deleted.

Company Action	System Response
1. The company login into the system and choose his respective vacancy.	
2. Clicks on Delete Button.	
	3. Displays UI to ensure if he/she wants to delete the vacancy details from the system.
4. Clicks on the Confirm button.	
	5. Deletes the vacancy information from the database.

Table 7: Delete Internship Details Expanded Use Case.

Alternative:

Line 4: Company clicks the Cancel Button to cancel the deletion of vacancy details. Use case ends.

3.6.2.6 View Applicants Details

Use case: View applicants.

Actor: Company, System

Description: The registered company logs into the system and they can view the application details including students details and cv.

Company Action	System Response
1. The company login into the system	
2. Clicks on the view application button.	
	3. Returns the detailed information of the application sent by students.
4. Views the application which includes students' details and cv.	

Table 8: View Internship Details Expanded Use Case.

3.6.2.7 View Feedbacks.

Use case: View Feedbacks.

Actor: Admin, System

Description: The admin logs into the system and selects view feedbacks

Admin Action	System Response
1. The admin login into the system and choose view feedback page.	
	2. Returns the feedback received from the students and company.
3. Views the feedback received.	

Table 9: View Feedbacks Expanded Use Case.

3.6.2.8 Apply for Internship.

Use case: Apply for internship.

Actor: Student, System

Description: The registered students log into the system and choose suitable internship vacancy for applying.

Student Action	System Response
1. The student login into the system chooses suitable internship for applying.	
2. Clicks on apply button.	
3. Fills out apply form including personal details cv and submits the form.	
	4. Check the inputted fields.
	5. Shows successful message for applying the internship.

Table 10: Apply for Internship Expanded Use Case.

Alternative:

Line 4: student does not fill the required fields in the form, error messages are displayed. Use case ends.

3.6.2.9 Send Feedbacks.

Use case: Send Feedbacks.

Actor: Student, Company, System

Description: The registered students and company logs into the system and selects feedback and sends necessary feedback.

Student/Company Action	System Response
1. The student and company login into the system and choose feedback page.	
2. Fills the feedback form and submits the form.	
	3. Checks the inputted fields and save feedbacks
	4. Send successful message for sending feedback.

Table 11: Send Feedbacks Expanded Use Case.

Alternative:

Line 2: Does not submit the form. Use case ends.

3.6.3 Collaboration Diagram

3.6.3.1 User Registration

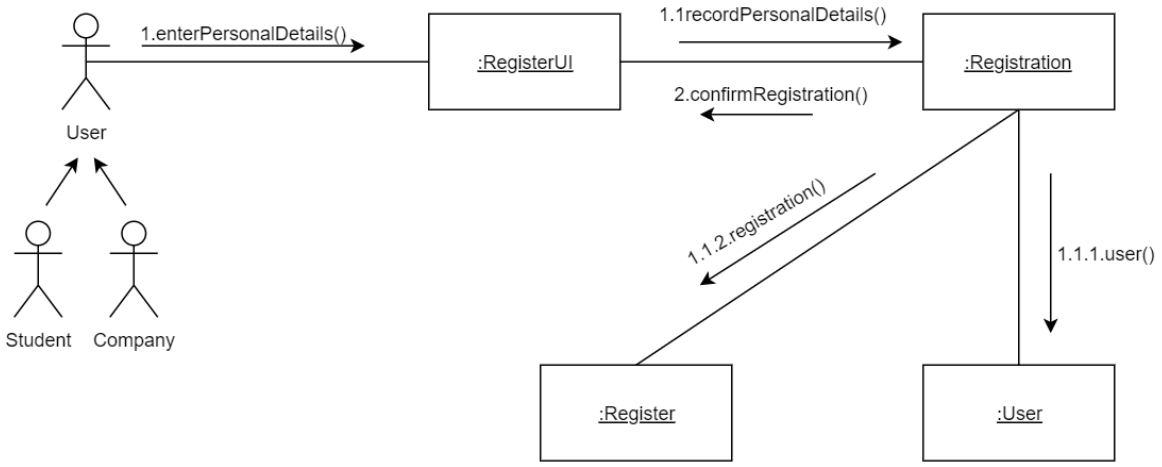

Figure 9: Collaboration Diagram: User Registration.

3.6.3.2 User Login

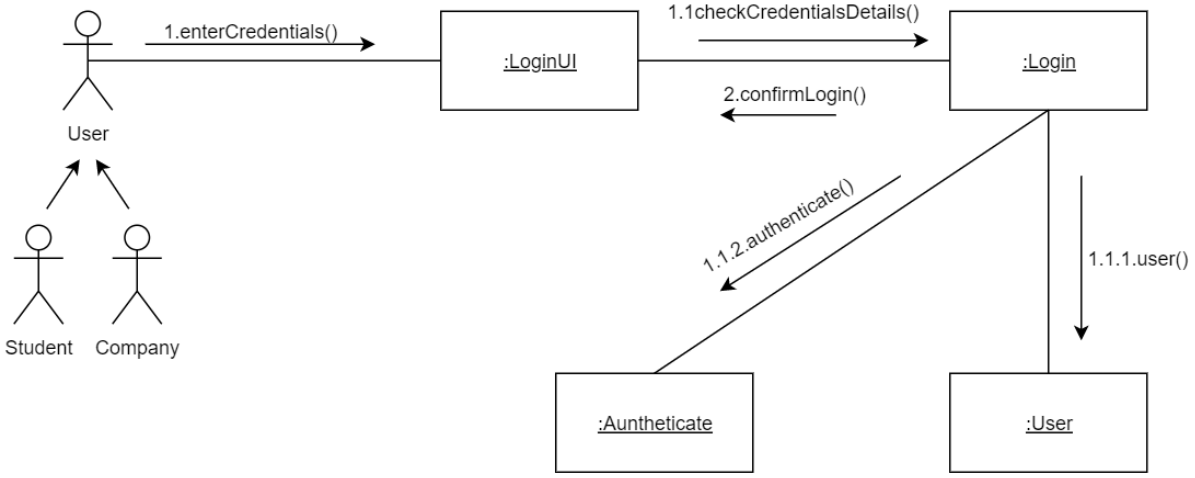

Figure 10: Collaboration Diagram: User Login.

3.6.3.3 Add Internship.

Figure 11: Collaboration Diagram: Add Internship.

3.6.3.4 Edit Internship.

Figure 12: Collaboration Diagram: Edit Internship.

3.6.3.5 Delete Internship.

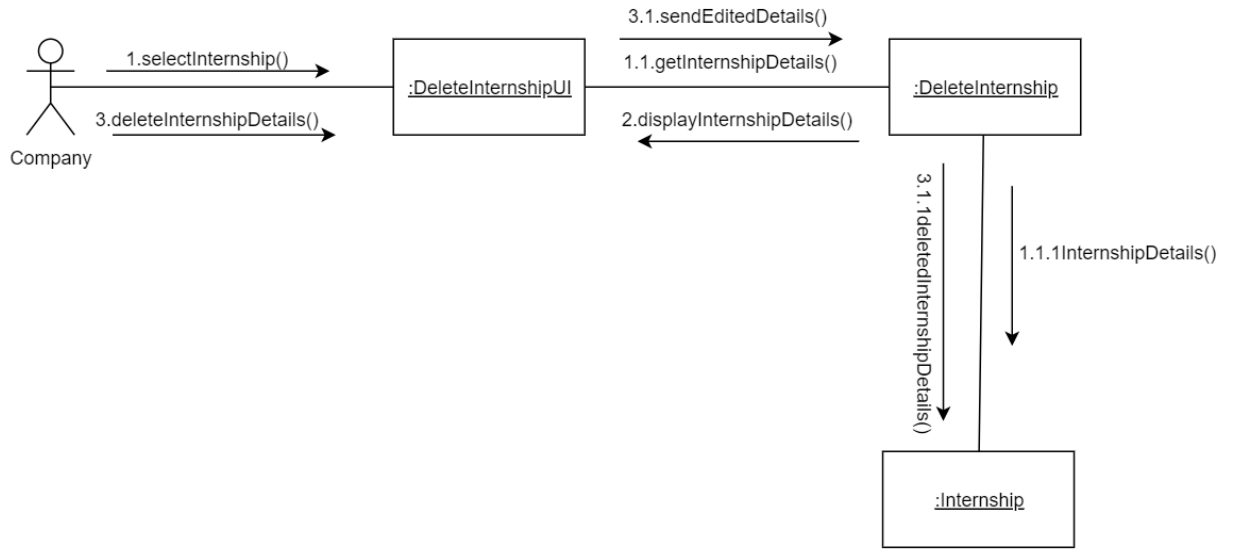

Figure 13: Collaboration Diagram: Delete Internship.

3.6.3.6 Send Feedback.

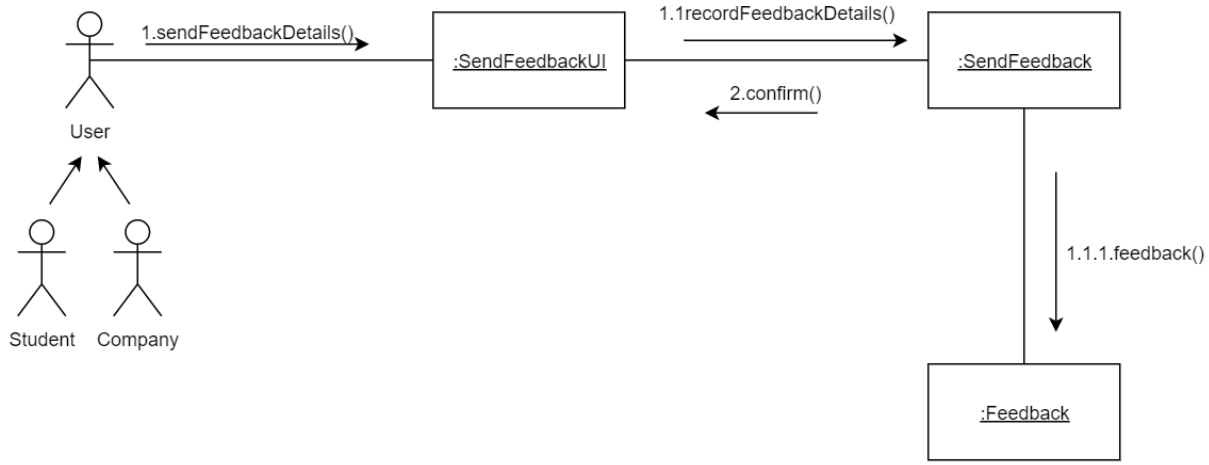

Figure 14: Collaboration Diagram: Send Feedback.

3.6.3.7 Apply Internship.

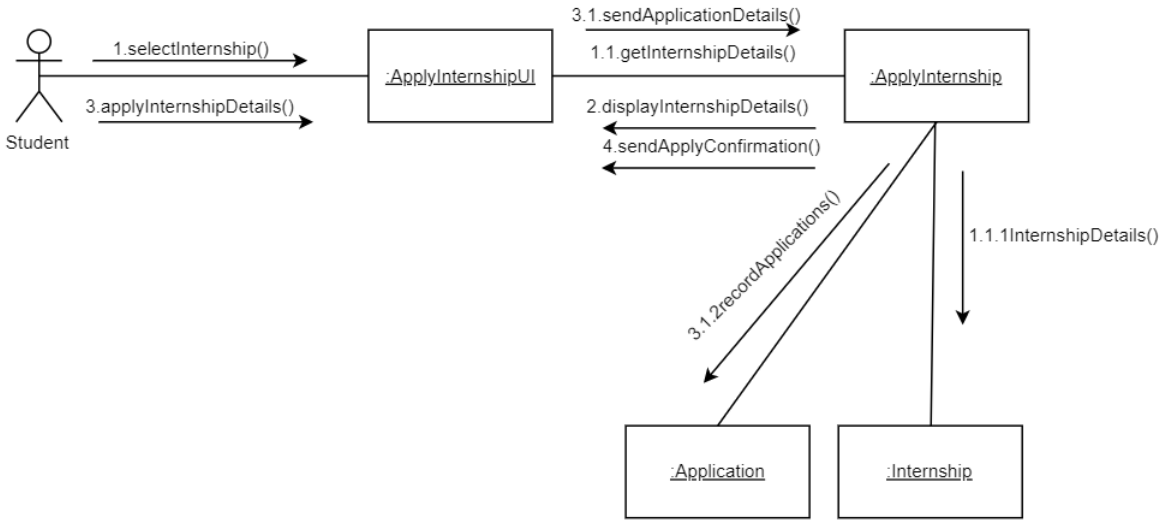

Figure 15: Collaboration Diagram: Apply Internship.

3.6.3.8 View Application Details.

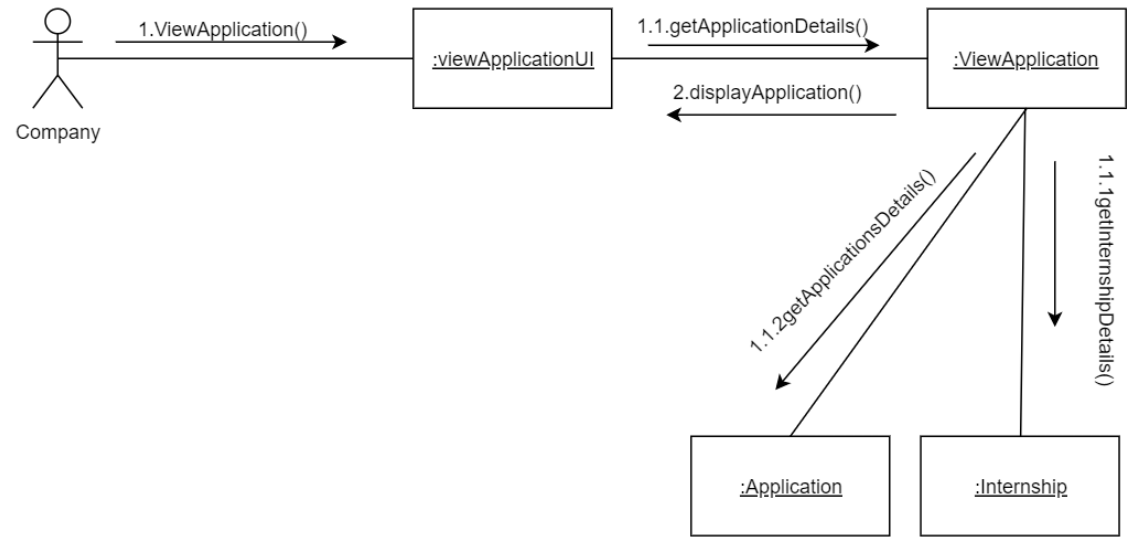

Figure 16: Collaboration Diagram: View Application Details.

3.6.4 Sequence Diagram

3.6.4.1 User Registration

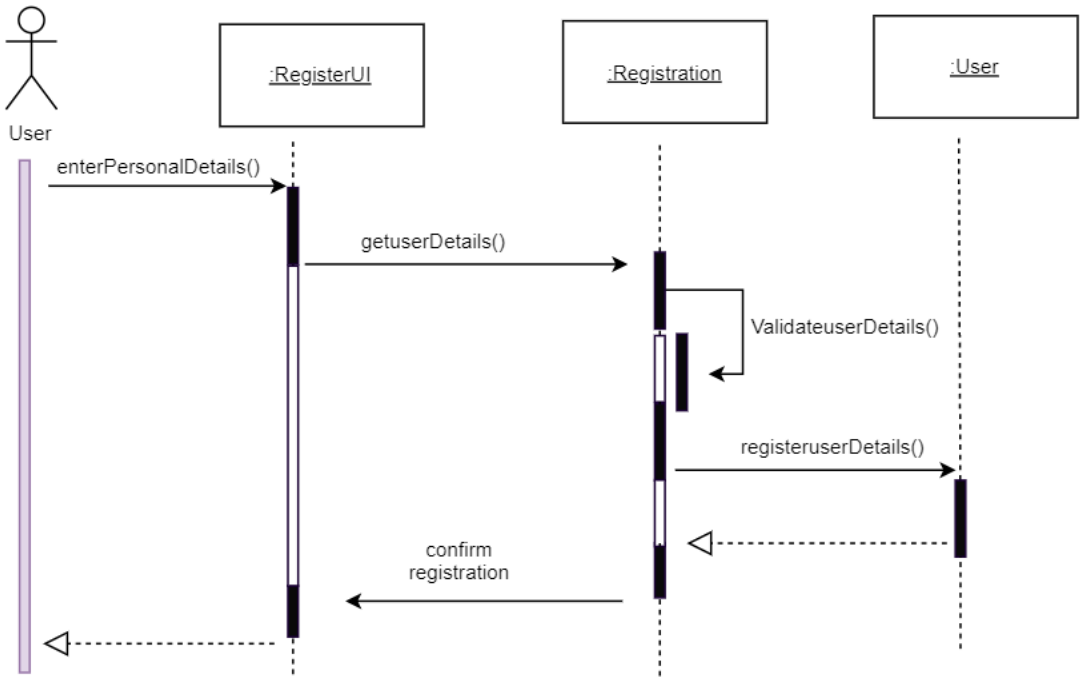

Figure 17: Sequence Diagram: User Registration

3.6.4.2 User Login

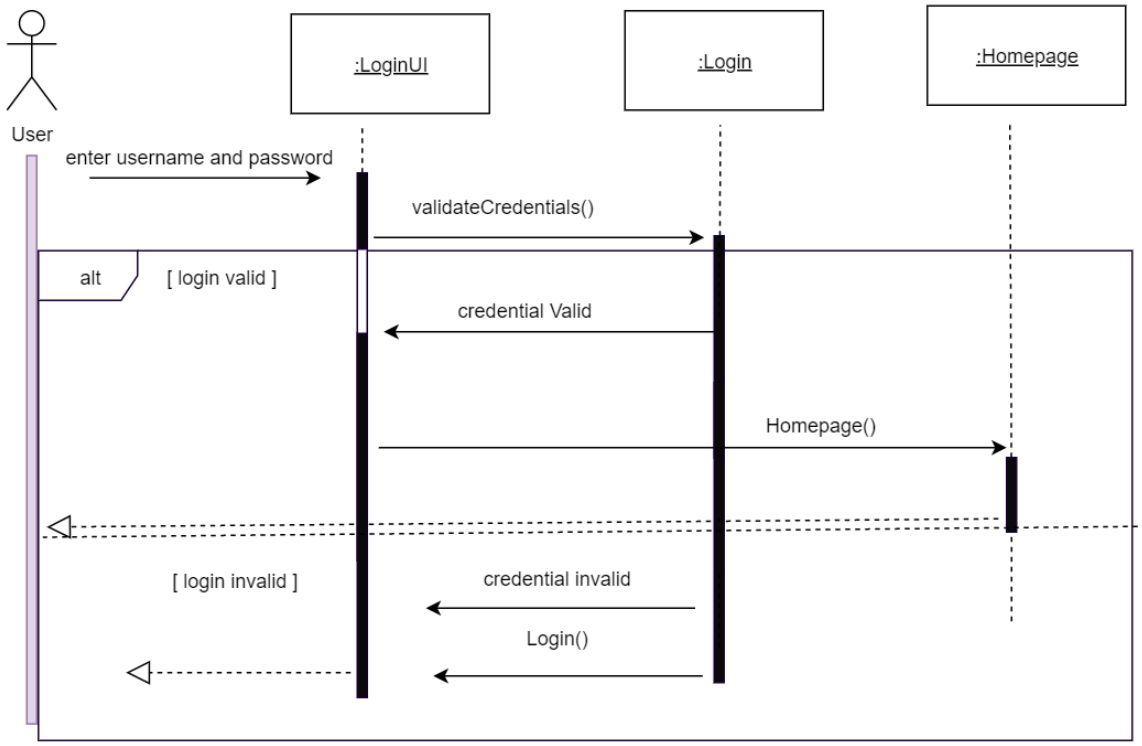

Figure 18: Sequence Diagram: User Login.

3.6.4.3 Add Internship.

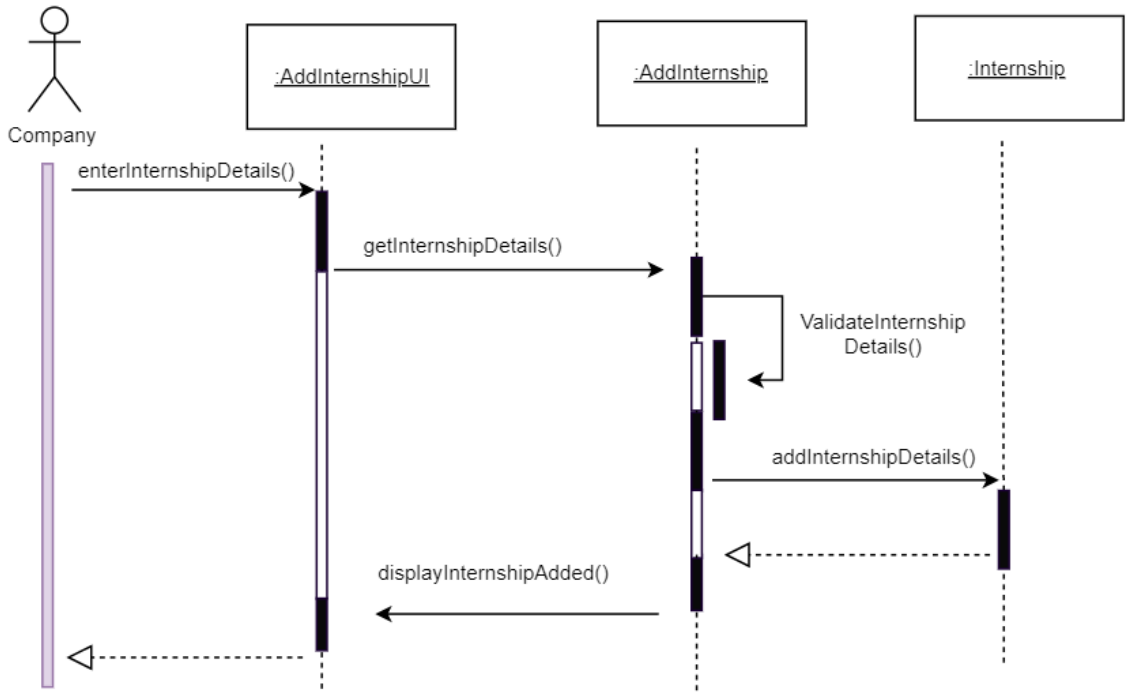

Figure 19: Sequence Diagram: Add Internship.

3.6.4.4 Edit Internship.

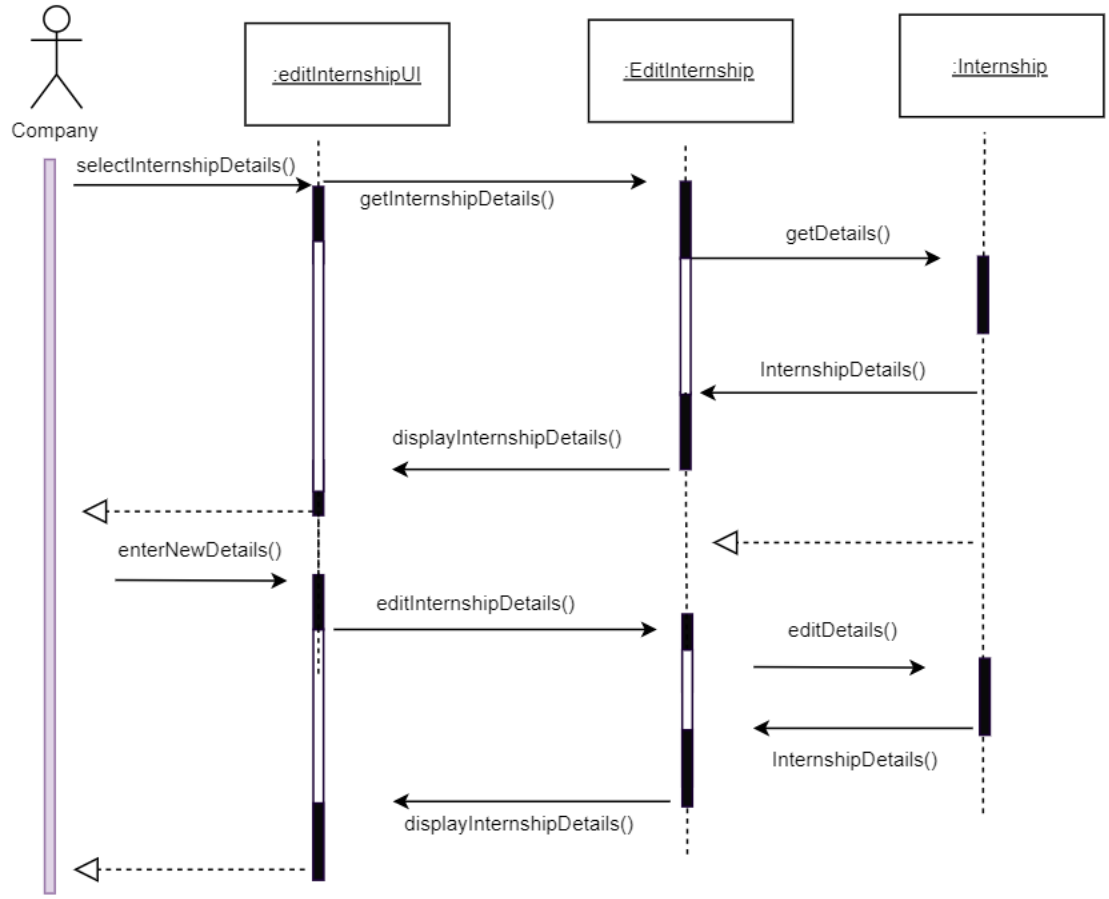

Figure 20: Sequence Diagram: Edit Internship.

3.6.4.5 Delete Internship.

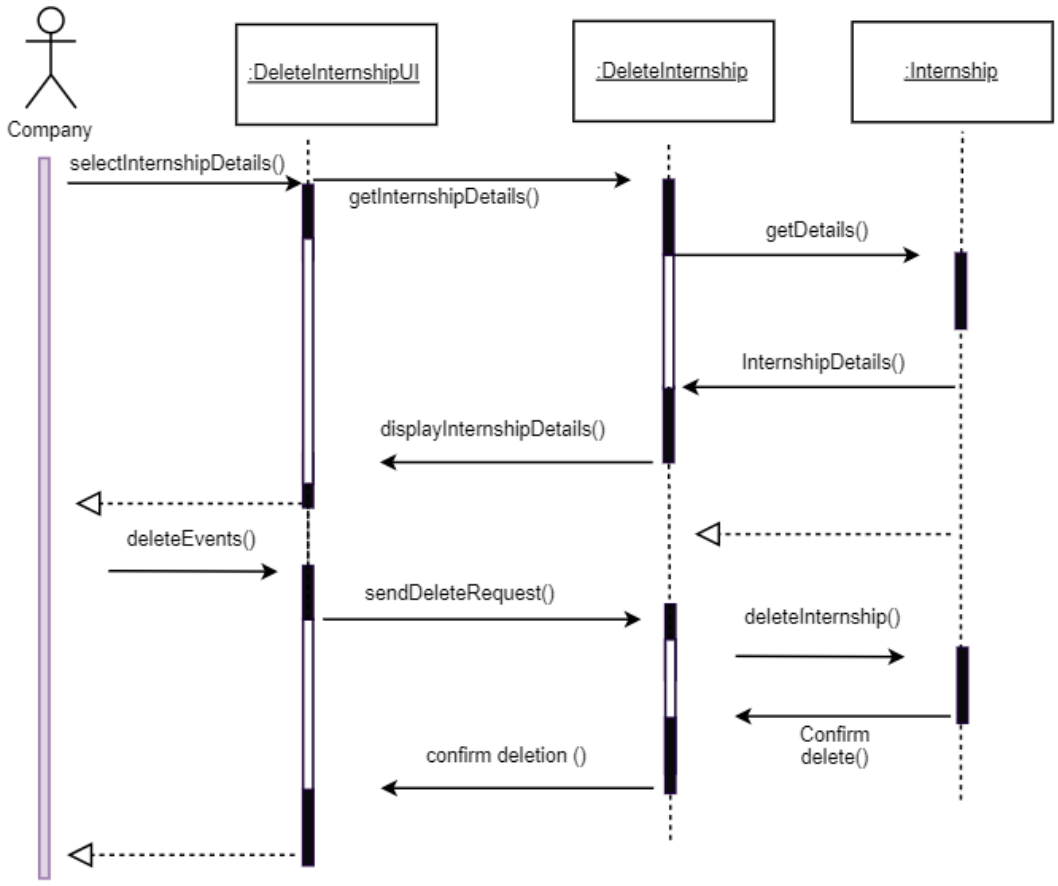

Figure 21: Sequence Diagram: Delete Internship.

3.6.4.6 View Application details.

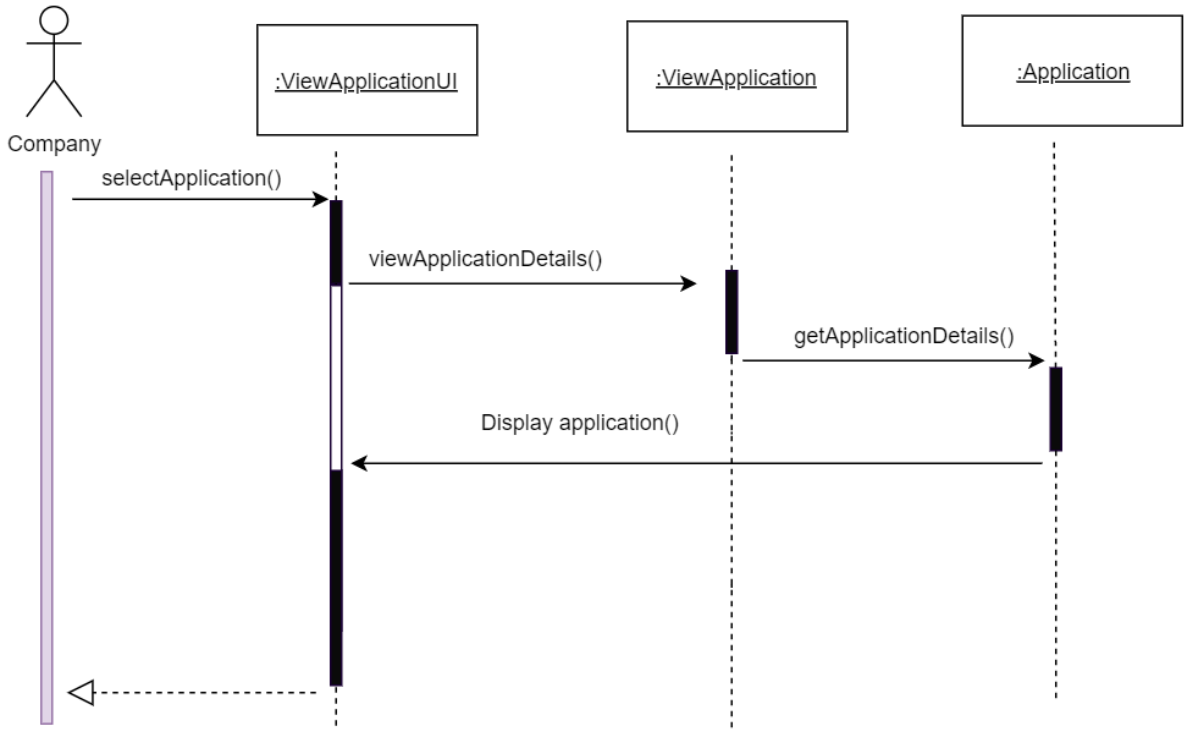

Figure 22: Sequence Diagram: View Application Details.

3.6.4.7 Send Feedbacks.

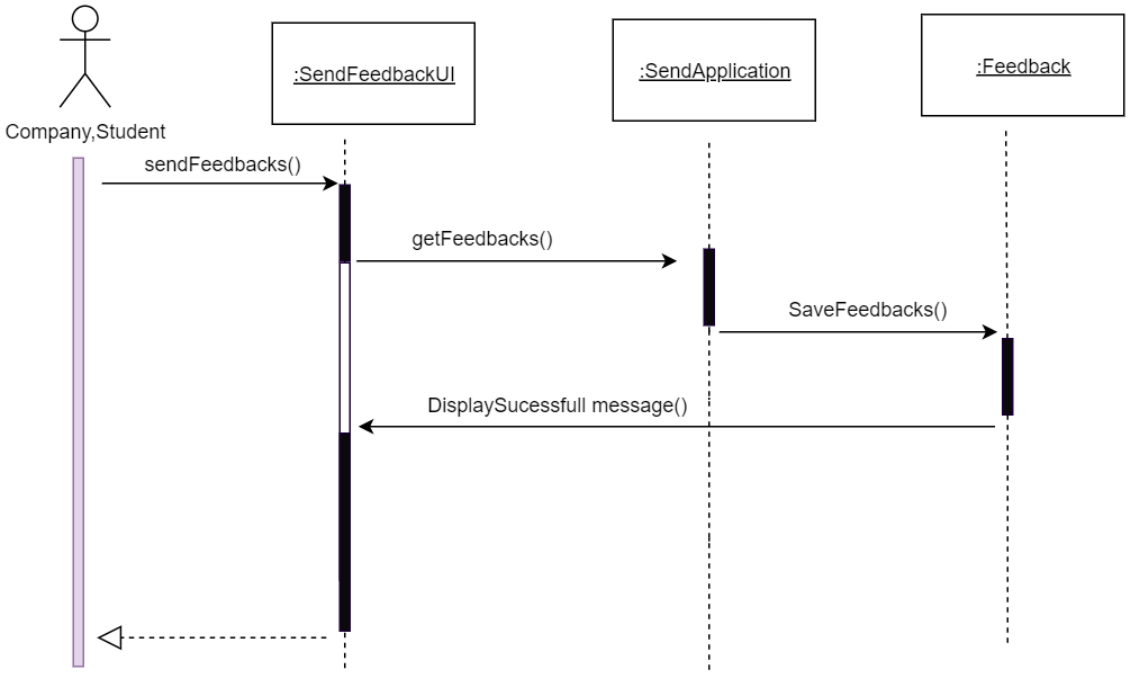

Figure 23: Sequence Diagram: Send Feedbacks.

3.6.4.8 Apply Internship.

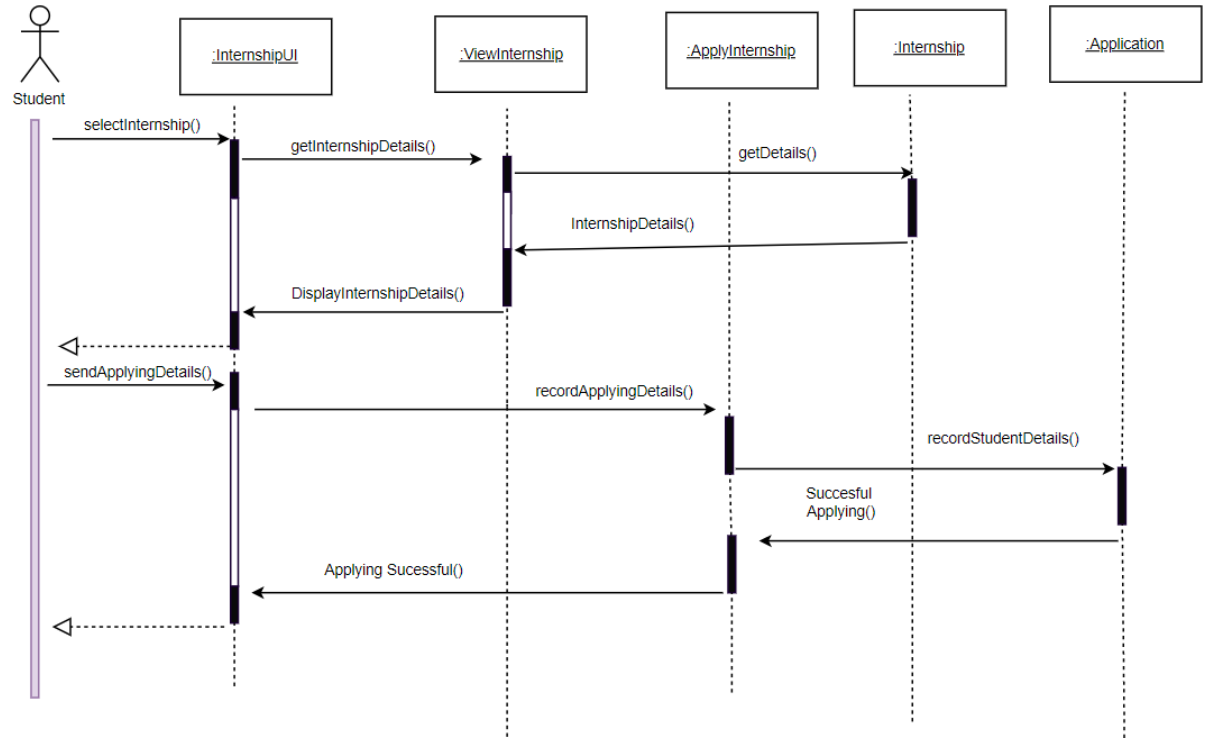

Figure 24: Sequence Diagram: Apply Internship.

3.6.4 System Architecture

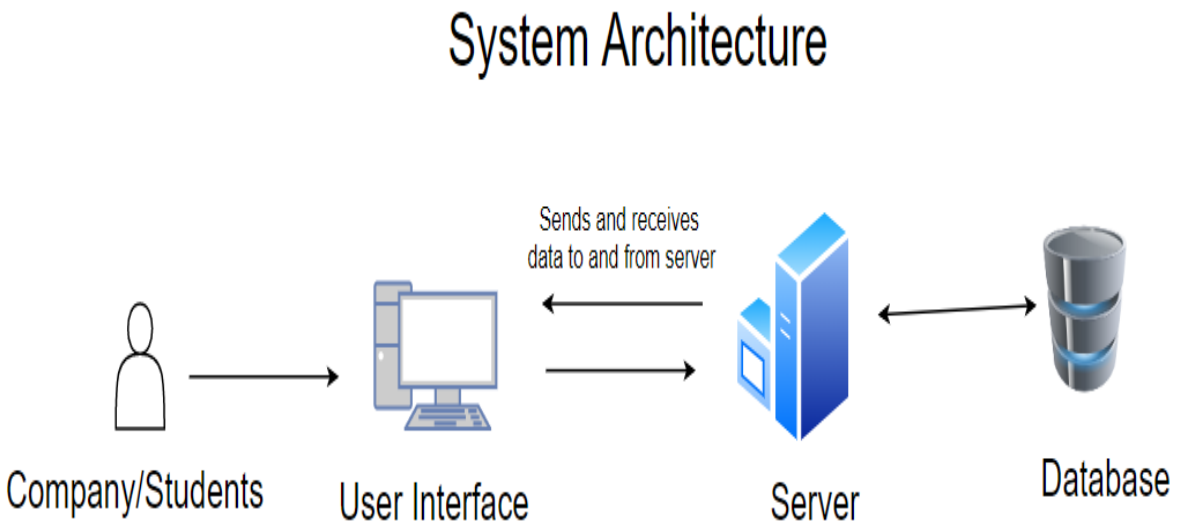

Figure 25: System Architecture.

3.7 Implementation

3.7.1 Company login.

```
<!-- NAVBAR -->
@include('frontend.includes.header')

<!-- HOME -->
<section class="section-hero overlay inner-page bg-image" style="background-image: url('images/hero_1.jpg');" id="home-section">
  <div class="container">
    <div class="row">
      <div class="col-md-7">
        <h1 class="text-white font-weight-bold">Company Login</h1>
        <div class="custom-breadcrumbs">
          <a href="index.html">Home</a> <span class="mx-2 slash">/</span>
          <span class="text-white"><strong>Log In</strong></span>
        </div>
      </div>
    </div>
  </div>
</section>
<section class="site-section">
  <div class="container">
    <div class="row ml-5" >
      <div class="col-lg-9">
        <h2 class="mb-4">Log In As Company</h2>
        <form action="{{route('company.loggin')}}" method="post" class="p-4 border rounded">
          {{csrf_field()}}
          <div class="row form-group">
            <div class="col-md-12 mb-3 mb-md-0">
              <label class="text-black" for="fname">Email</label>
              <input type="text"  name="email" class="form-control" placeholder="Email address">
            </div>
          </div>
          <div class="row form-group mb-4">
            <div class="col-md-12 mb-3 mb-md-0">
              <label class="text-black" for="fname">Password</label>
              <input type="password" name="password"  class="form-control" placeholder="Password">
            </div>
```

Figure 26: Code of company login.

3.7.2 Apply internship.

```
    <div class="row align-items-center mb-5">
      <div class="col-lg-8 mb-4 mb-lg-0">
        <div class="d-flex align-items-center">
          <div>
            <h2>Fill the form to apply for the internship</h2>
          </div>
        </div>
      </div>
      <div class="col-lg-4">
        <div class="row">
          @if(session()->has('message'))
          <div class="alert alert-success">
            {{ session()->get('message') }}
          </div>
          @endif
        </div>
      </div>
    </div>
    <div class="row mb-5">

      <div class="col-lg-12">
        <form class="p-4 p-md-5 border rounded" enctype="multipart/form-data" action="{{route('applyJob')}}" method="post">
          @csrf
          <h3 class="text-black mb-5 border-bottom pb-2">Your Details</h3>
          <div class="form-group">
            <label for="job-title">Your Name</label>
            <input type="text" name="name" class="form-control" placeholder="Eg Alex mist" required>
          </div>


          <div class="form-group">
            <label for="job-location">Your Address</label>
            <input type="text" name="address" class="form-control" placeholder="e.g. Itahari,Nepal" required>
          </div>

          <div class="form-group">
```

Figure 27: code of applying internship.

3.7.3 Frontend Controller

```php
<?php

namespace App\Http\Controllers;

use App\Models\Application;
use App\Models\contact;
use App\Models\Posts;
use App\Models\User;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\Auth;

class FrontendController extends Controller
{
    public function companyLoginPage(){
        return view('frontend.cmplogin');
    }
    public function studentLoginPage(){
        return view('frontend.stdlogin');
    }
    public function studentRegister(){
        return view('frontend.stdregister');
    }
    public function companyRegister(){
        return view('frontend.cmpregister');
    }
    public function internship()
    {
        $post = Posts::orderBy('created_at','desc')->get();
        return view('frontend.internship',compact('post'));
    }
    public function addPost()
    {
        return view('frontend.postjob');
    }
    public function viewPost()
    {
        $user = Auth::user()->id;
```

Figure 28: Sample of frontend controller.

3.7.4 Student Register

```
<section class="site-section">
  <div class="container">
    <div class="row ml-5">
      <div class="col-lg-9 mb-5">
        <h2 class="mb-4">Sign Up As Student</h2>
        <form method="POST" action="{{ route('register') }}">
          @csrf

          <div class="form-group row">
            <label for="name" class="col-md-4 col-form-label text-md-right">{{ __('Name') }}</label>

            <div class="col-md-6">
              <input id="name" type="text" class="form-control @error('name') is-invalid @enderror" name="name" value="{{ old('name') }

              @error('name')
              <span class="invalid-feedback" role="alert">
                <strong>{{ $message }}</strong>
              </span>
              @enderror
            </div>
          </div>

          <div class="form-group row">
            <label for="email" class="col-md-4 col-form-label text-md-right">{{ __('E-Mail Address') }}</label>

            <div class="col-md-6">
              <input id="email" type="email" class="form-control @error('email') is-invalid @enderror" name="email" value="{{ old('emai

              @error('email')
              <span class="invalid-feedback" role="alert">
                <strong>{{ $message }}</strong>
              </span>
              @enderror
            </div>
          </div>
```

Figure 29: Student register code part.

Chapter 4: Testing and Analysis

4.1 Test Plan

4.1.1 System Testing Plan

Test Case	Test Case
1.	To check if a user can register as Student or Company.
2.	To check if a user can log in to the system using authenticated username and password.
3.	To check if logged in, Company can add internship vacancy to the system.
4.	To check if logged in Company can edit and update their internship details.
5.	To check if a logged in Company can delete the internship.
6.	To check if the Company can view their application Details.
7.	To check if a Student can apply for an internship.
8.	To check if logged in Student and Company can post feedback to the system.
9.	To check if Student can search for an internship according to the entered internship title.

Table 12: System Test Plan.

4.1.2 Unit Testing Plan

Test Case	Test Case
1.	To check if a user can log into the system with invalid username and password.
2.	To check for empty field validation in Login Form.
3.	To check for empty field validation in Register Form.
4.	To check if new users are created after user's registration.
5.	To check if applying internship form is validated or not.
6.	To check if posting internship form is validated or not.
7.	To check if user can register with email that already exists.
8.	To check if students can apply without logging in or not.

Table 13: Unit Test Plan.

4.2 System Testing

Test 1. To check if a user can register as Student or Company.

Objective	To check if a user can register as Student or Company.
Action	Enter required information on the Register form and click the register button to register.
Expected Result	Registration form will be displayed and after submitting the form, the user should be directed to respected main page.
Actual Result	Registration form displayed and after submitting the form, the users is directed to their respected main page.
Conclusion	Test successful

Table 14: Testing user Registration.

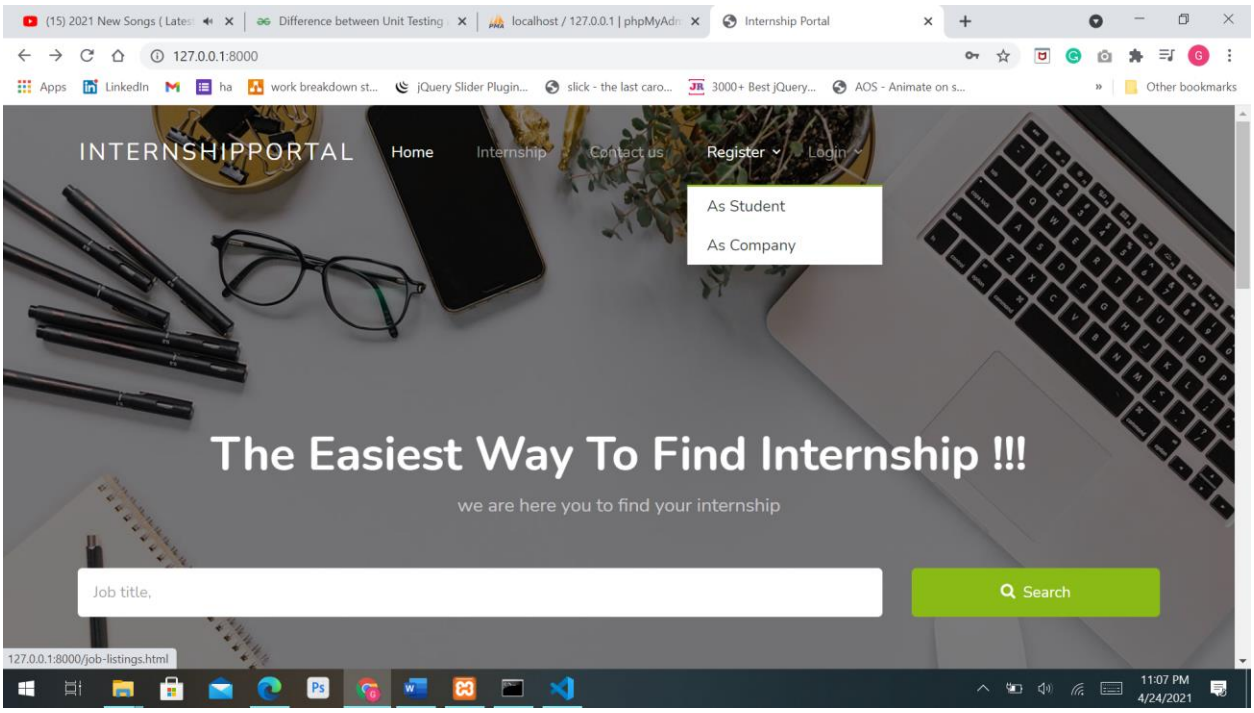

Figure 30: Register Button for Student and Company respectively.

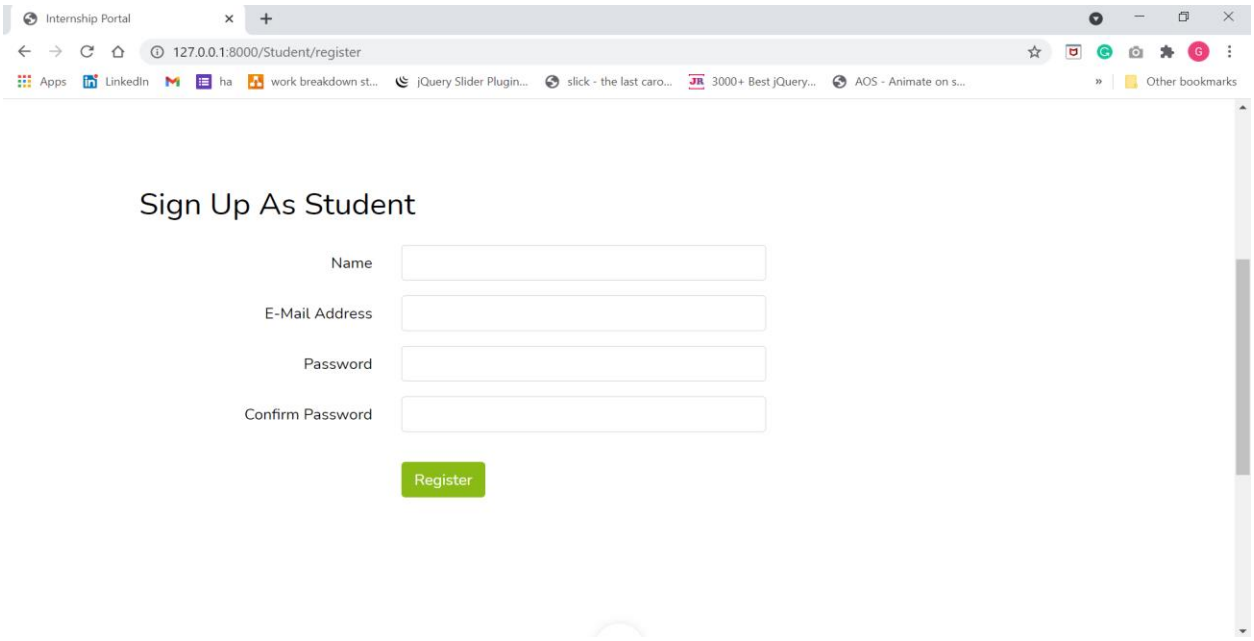

Figure 31: Register as Student form.

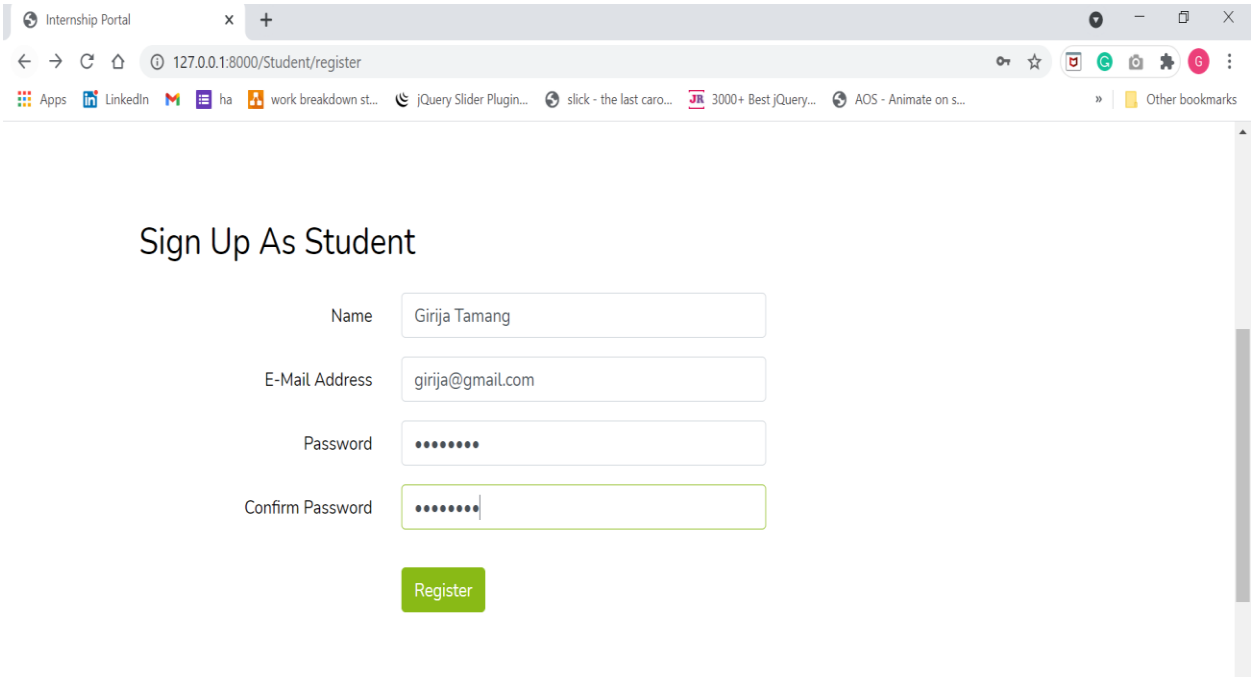

Figure 32: Filling student data for registration.

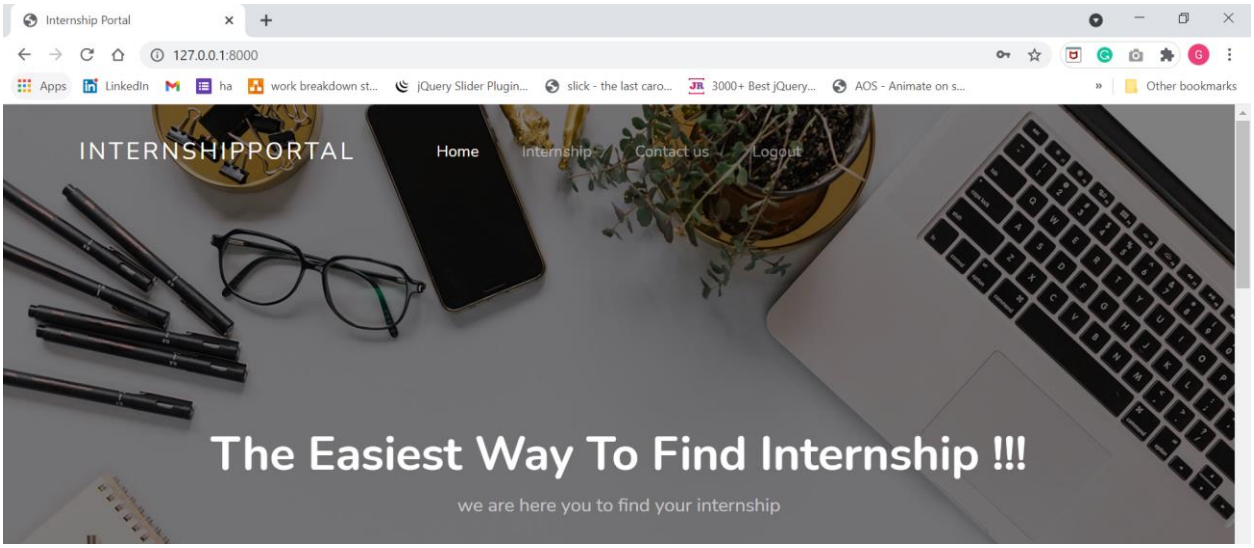

Figure 33: Redirect to main page after successfully registering student.

Test 2. To check if a registered Company can login to the system or not.

Objective	To check if a registered Company can login to the system or not.
Action	Company enters the username and password and clicks the login button to login into the system.
Expected Result	The authenticated company should be redirected to respective dashboard.
Actual Result	The authenticated company is redirected to the respective dashboard.
Conclusion	Test successful

Table 15: To check if registered Company can login to the system or not.

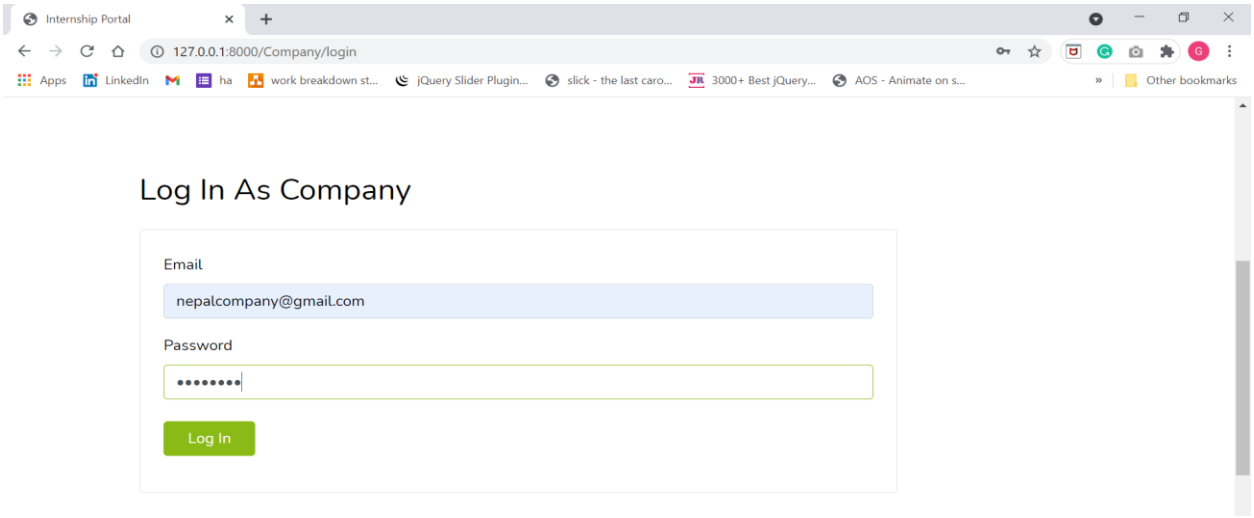

Figure 34: Enter correct username and password for company login.

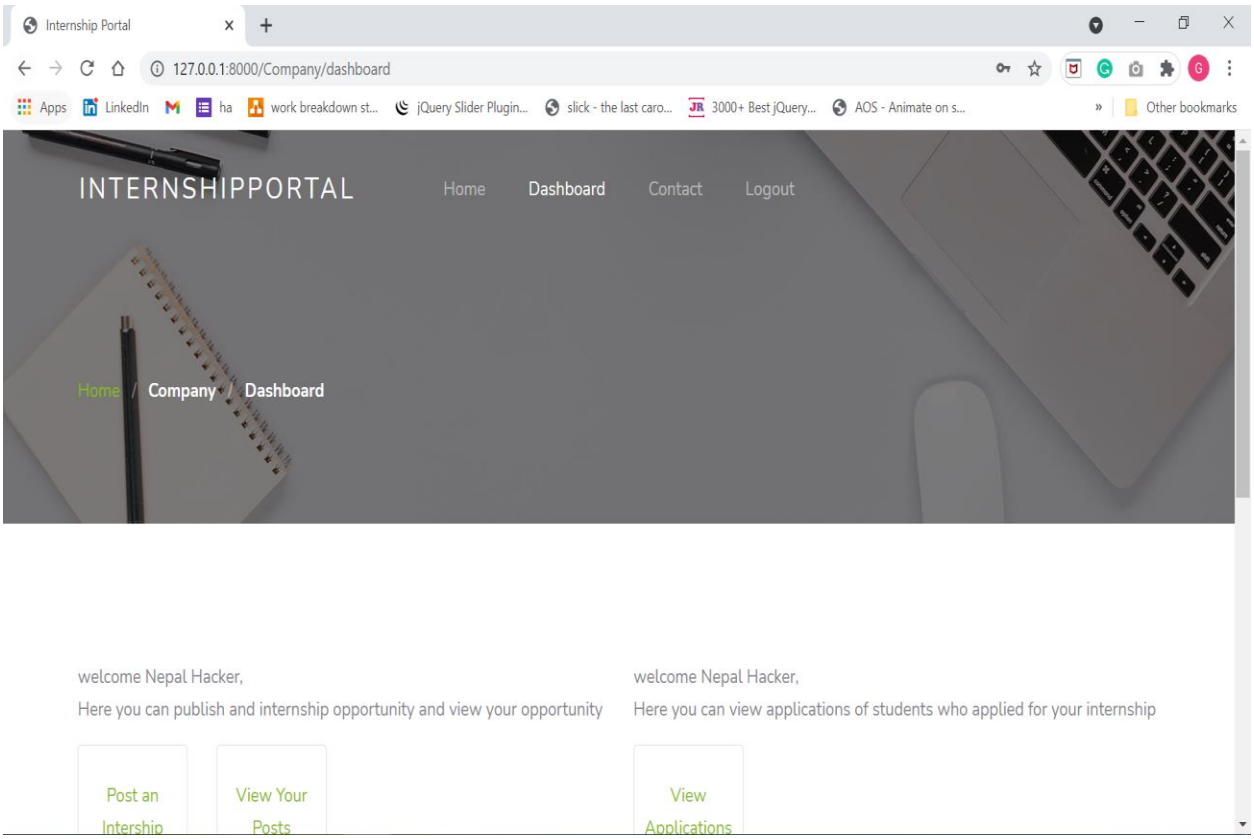

Figure 35: Redirected to dashboard on successful company login authentication.

Test 3. To check if logged in company can add internship vacancy to the system or not.

Objective	To check if logged in company can add internship vacancy to the system or not.
Action	Company logs into the system and clicks on the add post button and fills up the form.
Expected Result	The internship details will be added to the company dashboard and featured internship listing page of the system.
Actual Result	The internship details are added to the company dashboard and featured internship listing page of the system.
Conclusion	Test successful

Table 16: To check if logged in company can add internship vacancy to the system or not.

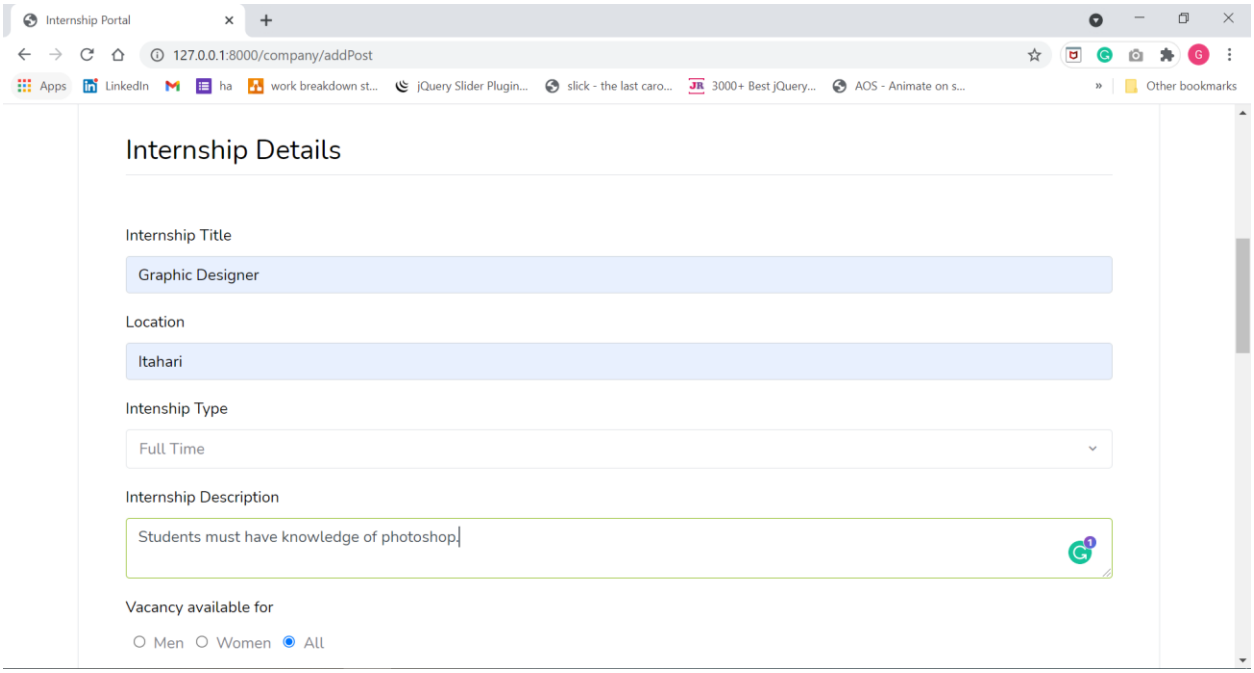

Figure 36: Adding Internship Vacancy Post form.

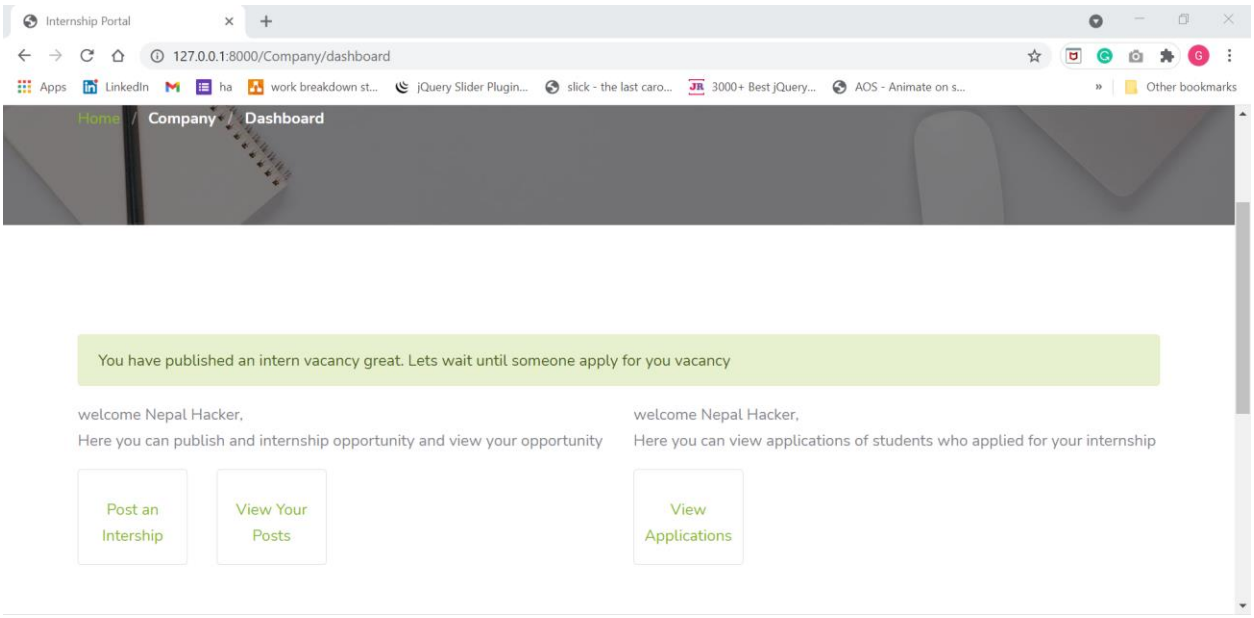

Figure 37: Internship vacancy added to the system.

Test 4. To check if logged in company can edit and update their internship details or not.

Objective	To check if logged in company can edit and update their internship details or not.
Action	Company clicks on the Edit Button and system redirected to update detail form and changes made.
Expected Result	The company will be able to update the details of internship.
Actual Result	The company can update the details of internship.
Conclusion	Test successful

Table 17: To check if logged in company can edit and update their internship details or not.

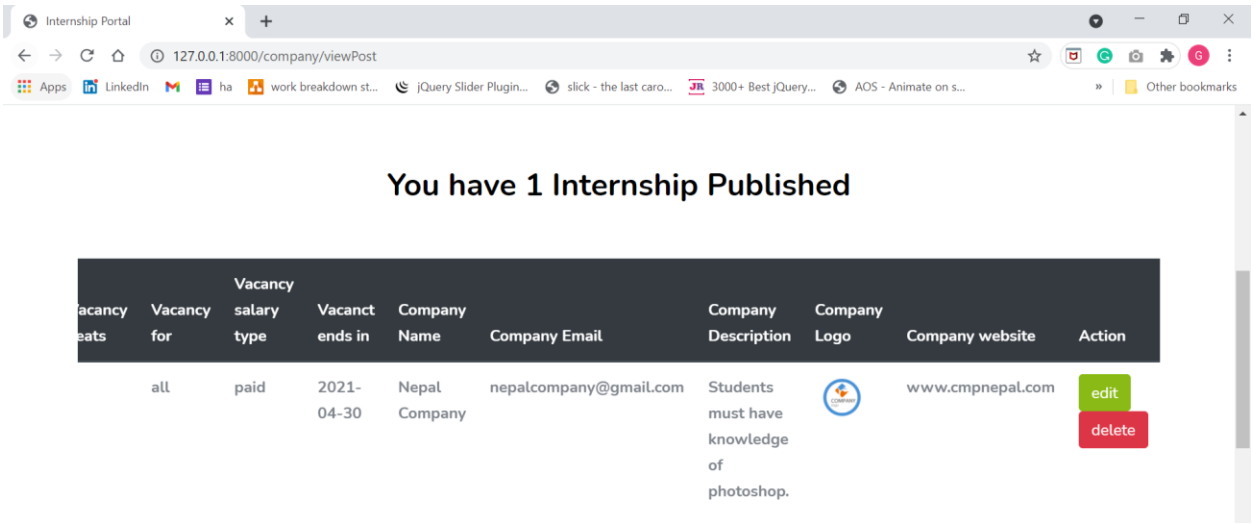

Figure 38 Button to Edit Internship Details.

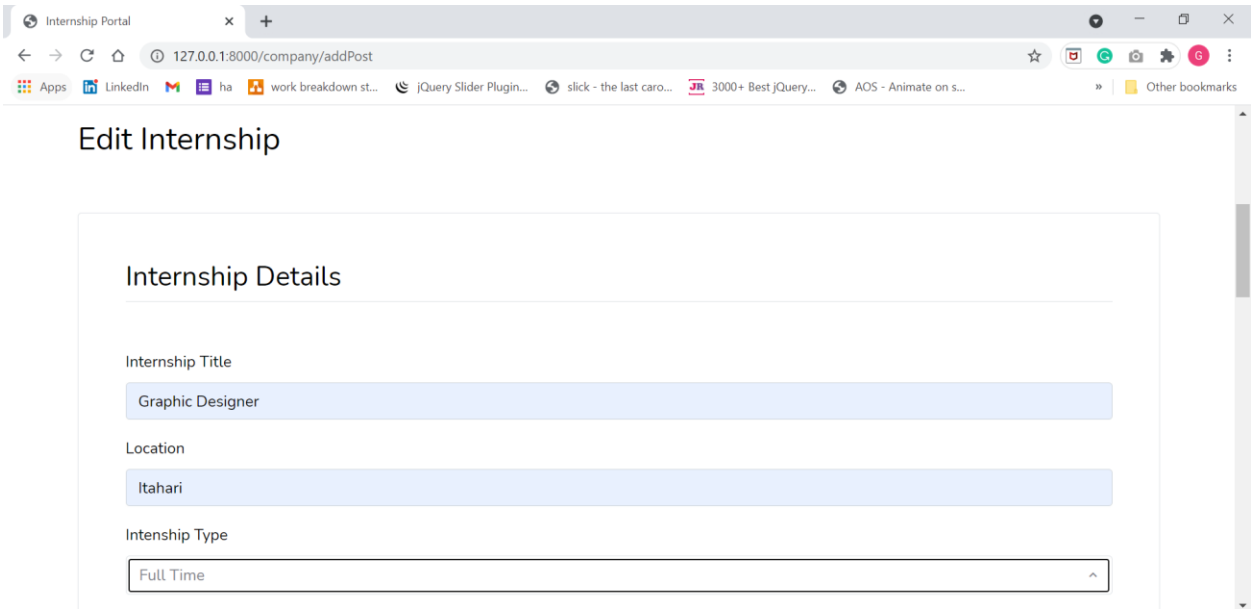

Figure 39: Form to Edit Internship Details.

Test 5. To check if logged in Company can delete their internship or not.

Objective	To check if logged in Company can delete their internship or not.
Action	Company clicks on the delete button
Expected Result	The company will be able to delete the internship.
Actual Result	The company is able to delete details and is redirected to company dashboard.
Conclusion	Test successful

Table 18: To check if logged in Company can delete their internship or not.

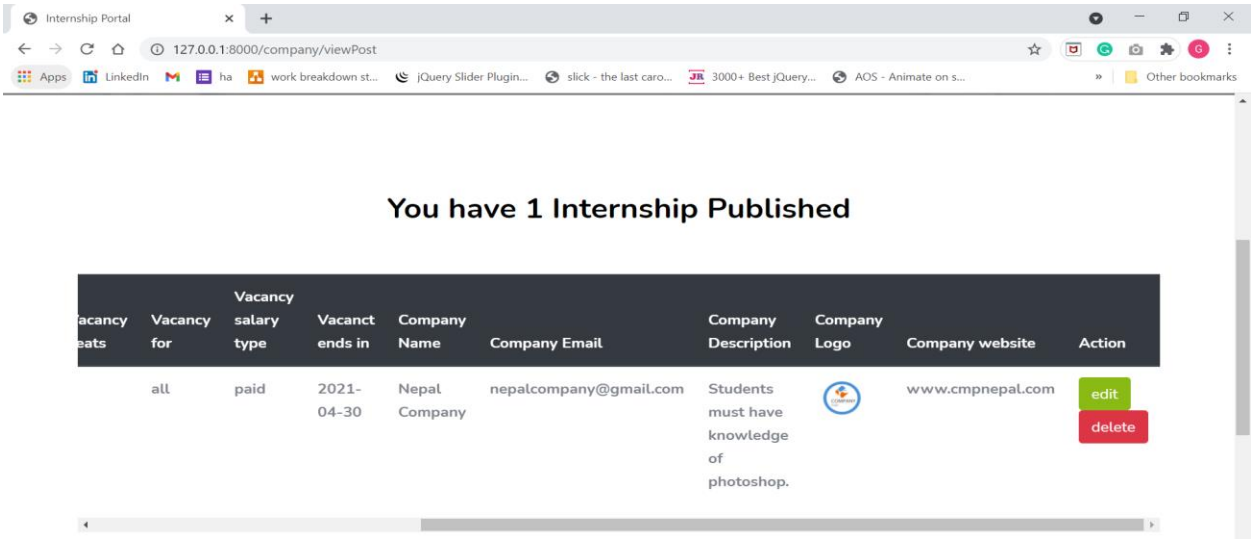

Figure 40: Company Page before Deleting Internship.

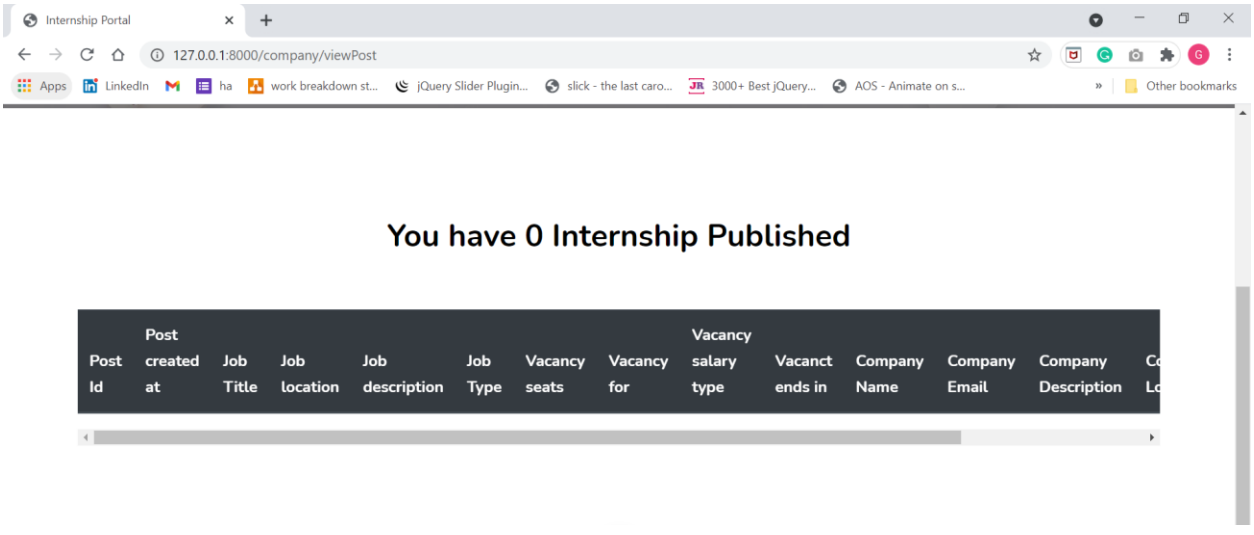

Figure 41: Company Page after Deleting Internship.

Test 6. To check if logged in company can view application details or not.

Objective	To check if logged in company can view application details or not.
Action	Company clicks on the view application button
Expected Result	The company will be showing the application page.
Actual Result	The company shows the application page.
Conclusion	Test successful

Table 19: To check if logged in company can view application details or not.

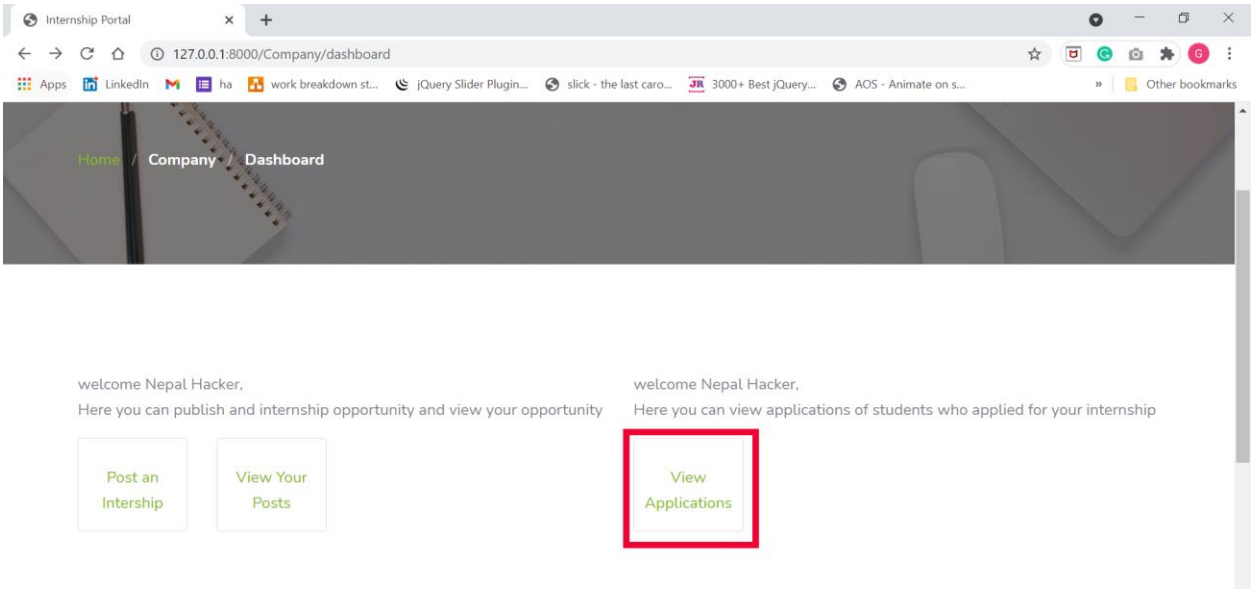

Figure 42: Company view application button.

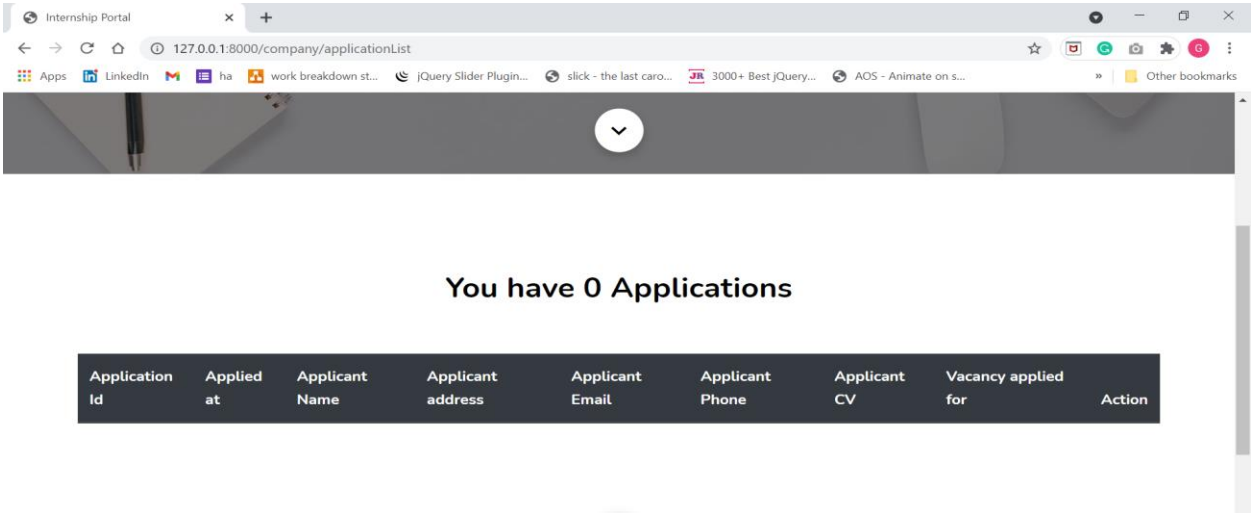

Figure 43: Company view application page.

Test 7. To check if registered Student can login into the system not.

Objective	To check if registered Student can login into the system not.
Action	The students enter username and password to log into the system.
Expected Result	The authenticated customer should be redirected to landing page.
Actual Result	The authenticated customer is redirected to landing page.
Conclusion	Test successful

Table 20: To check if registered Student can login into the system not.

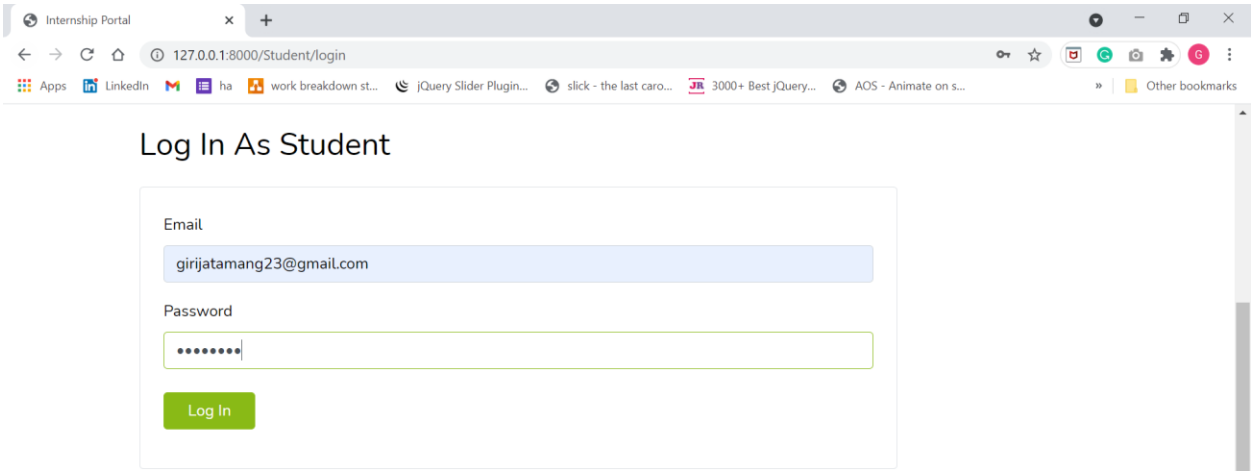

Figure 44: Enter correct username and password for student login.

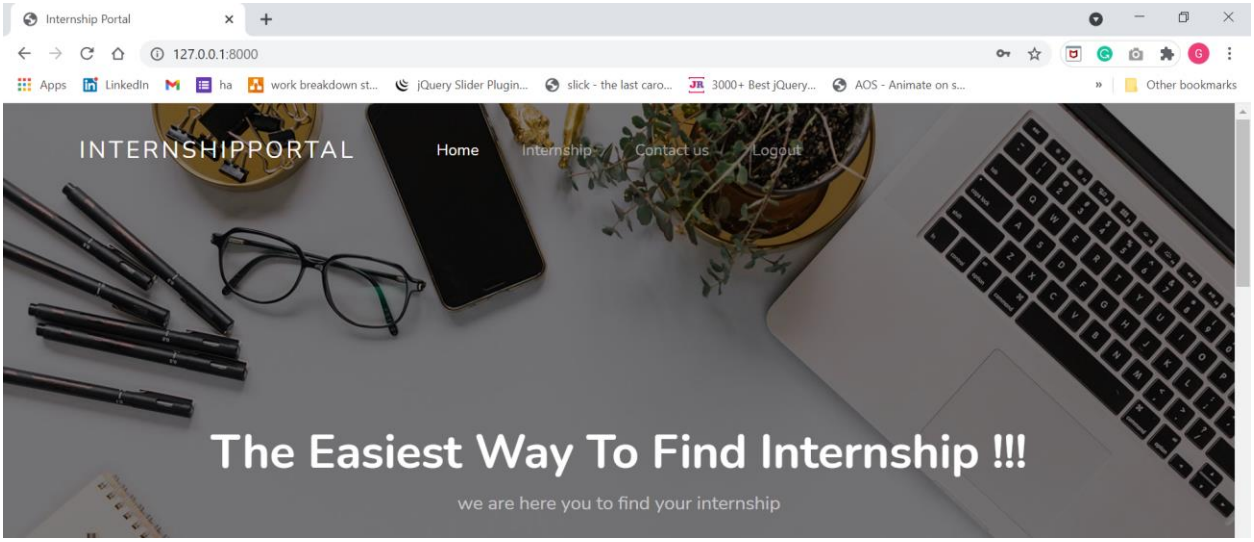

Figure 45: Redirected to dashboard on successful login authentication.

Test 8. To check if Student can apply for internship or not.

Objective	To check if Student can apply for internship or not.
Action	The student selects an internship and fill the form then click apply button.
Expected Result	System should show the apply successful message
Actual Result	System shows the apply successful message.
Conclusion	Test successful

Table 21: To check if Student can apply for internship or not.

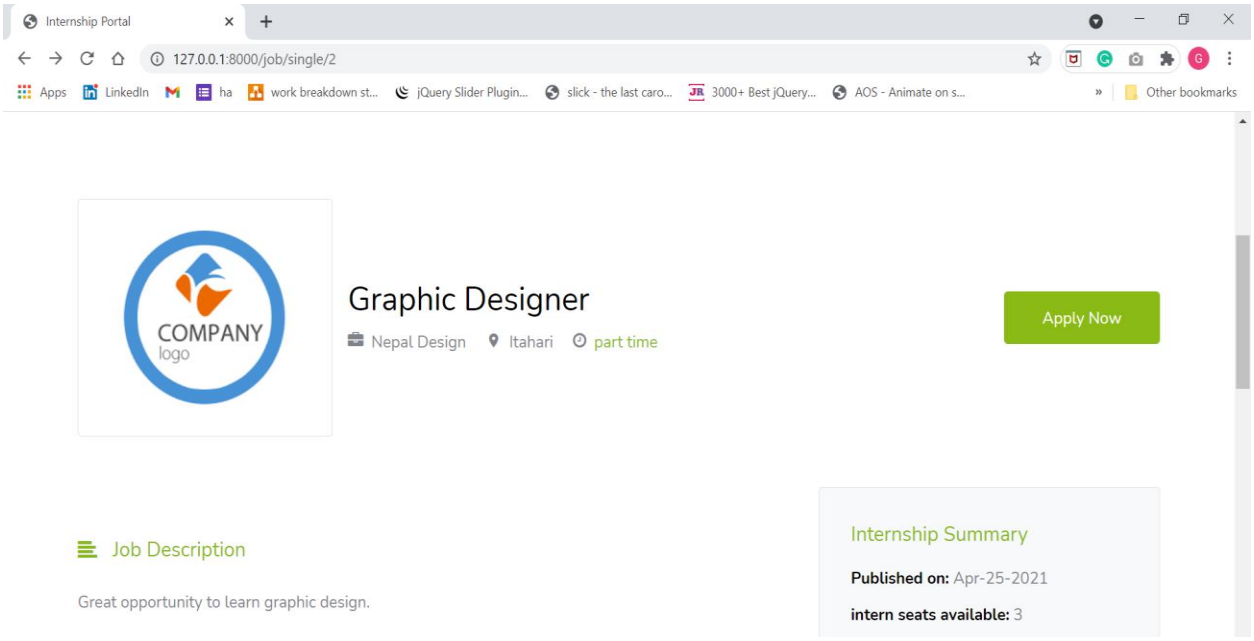

Figure 46: Internship detail page.

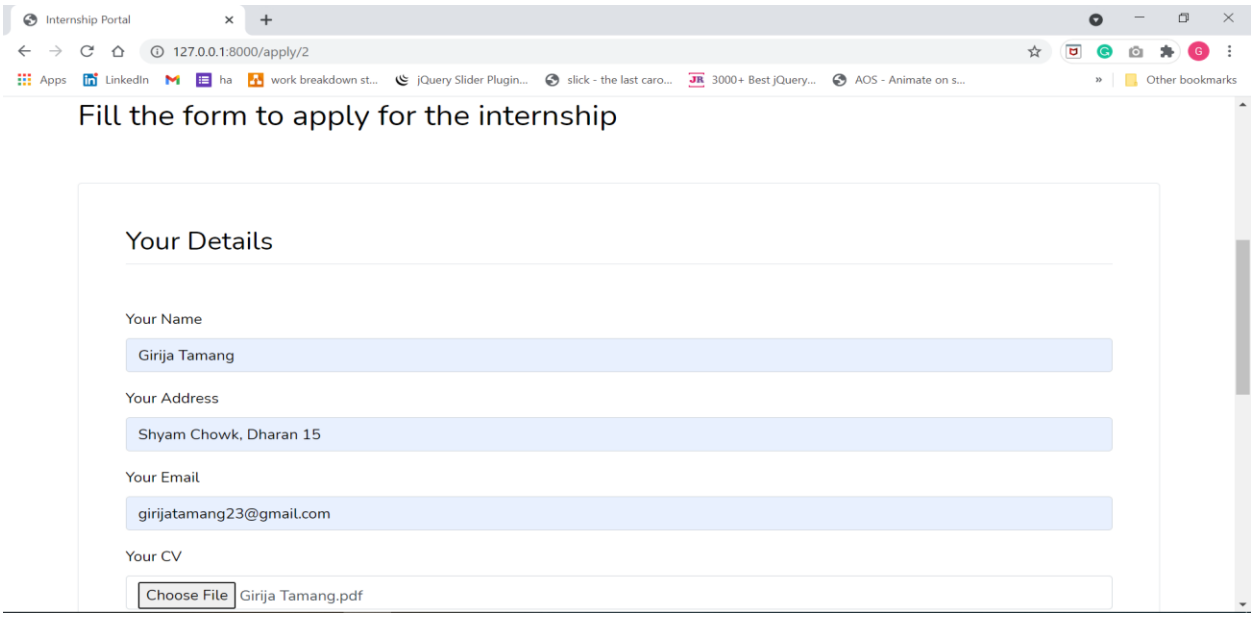

Figure 47: Apply form to apply for the internship.

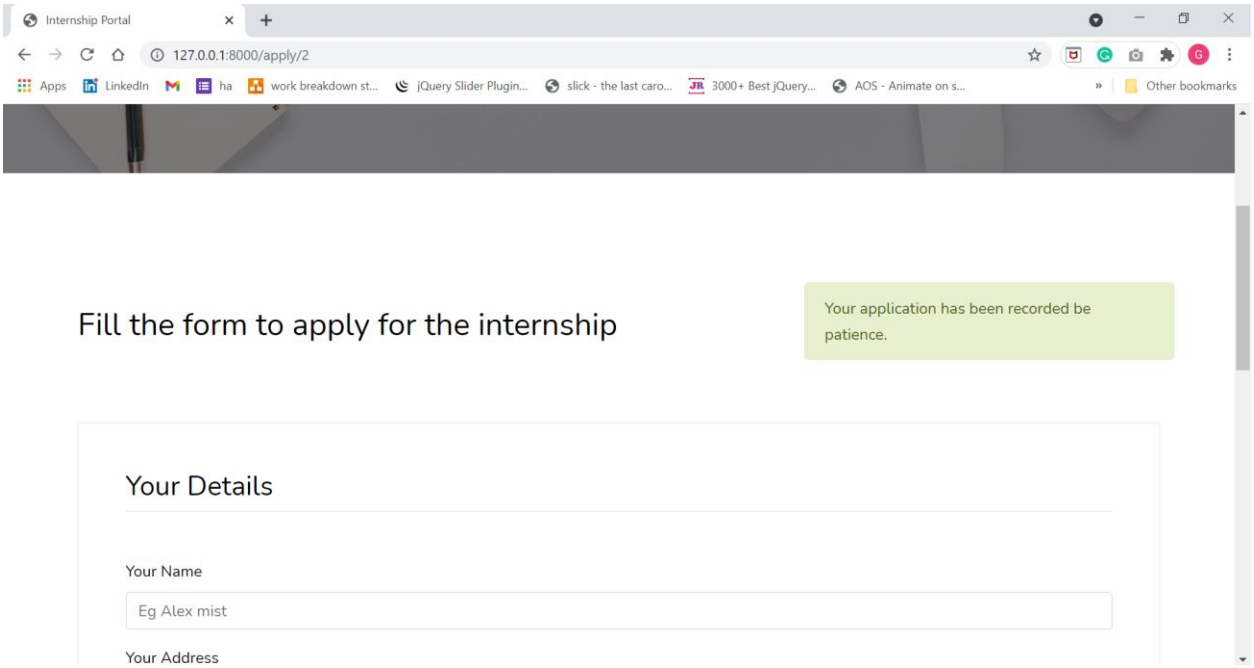

Figure 48: Applying for internship successful message shown.

4.3 Unit Testing

Test 1. To check if new company is created after company registration.

Objective	To check if new company is created after company registration.
Action	User clicks on Register button after filling the register form.
Expected Result	The new company user should be created.
Actual Result	The new company user is created.
Conclusion	Test successful

Table 22: To check if new company is created after company registration.

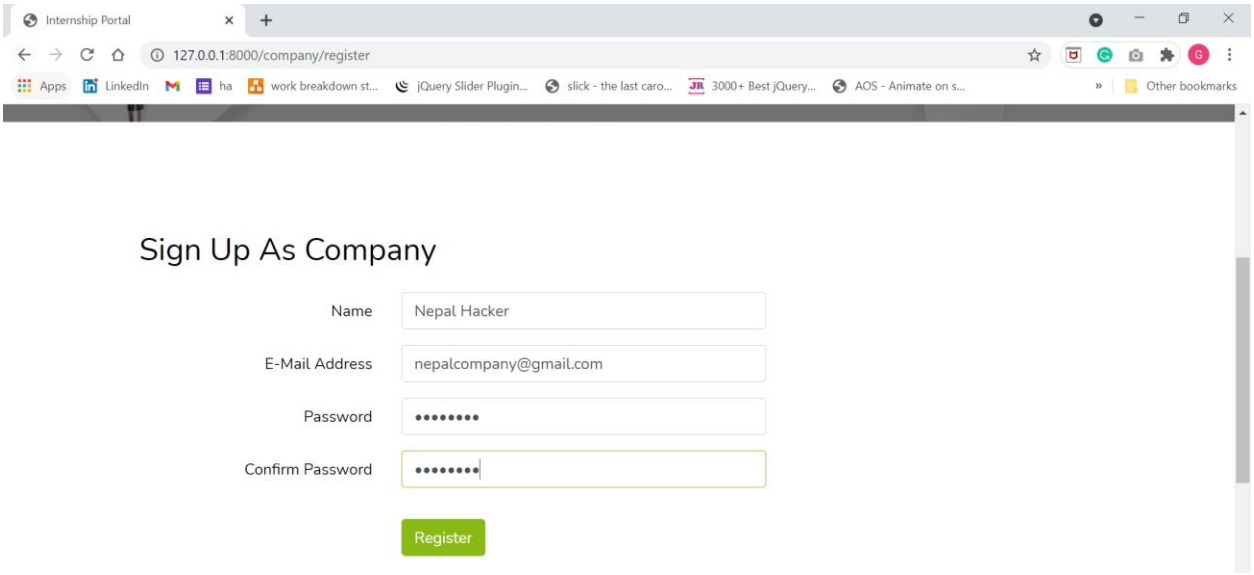

Figure 49: Company fills up the registration form for registration.

Figure 50: New Company User added to database.

Test 2. To check if user can log into the system with invalid username and password.

Objective	To check if user can log into the system with invalid username and password.
Action	The user enters invalid username and password to log into the system.
Expected Result	User should not be logged into the system and redirects not found page.
Actual Result	The user is not logged into the system and redirects not found page.
Conclusion	Test successful

Table 23: To check if user can log into the system with invalid username and password.

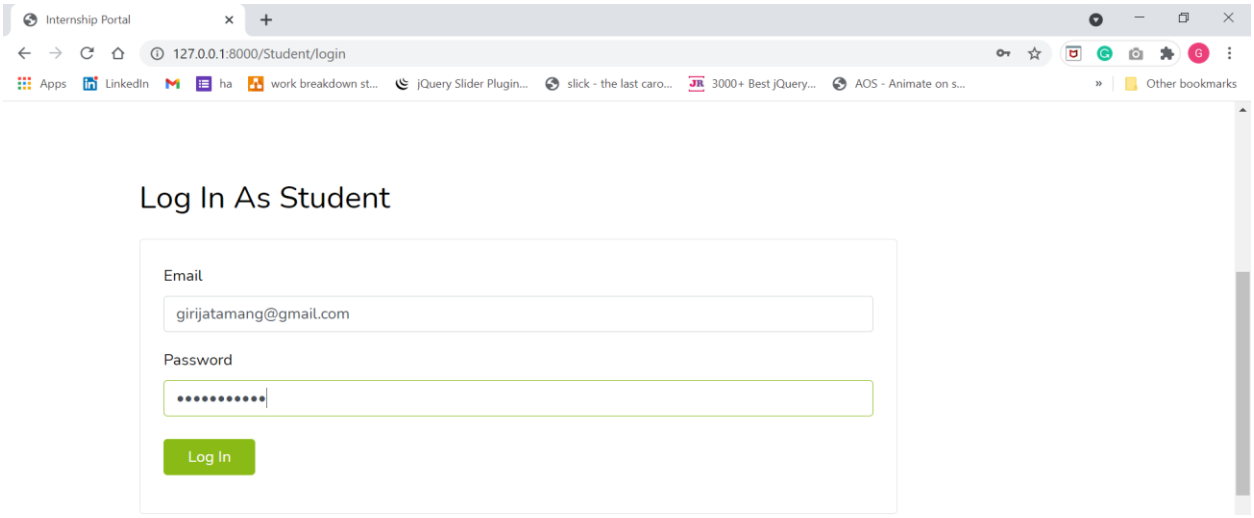

Figure 51: Entering wrong username and password for login.

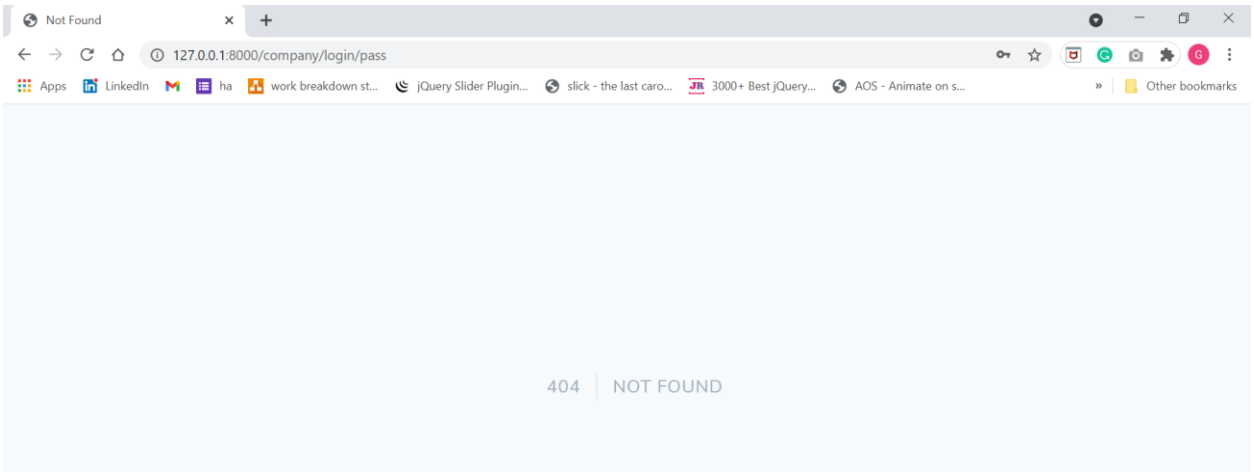

Figure 52: Wrong username and password for login redirects not found page.

Test 3. To check if new student is created after student registration.

Objective	To check if new student is created after student registration.
Action	User clicks on Register button after filling the register form.
Expected Result	The new student user should be created.
Actual Result	The new student is created.
Conclusion	Test successful

Table 24: To check if new student is created after student registration.

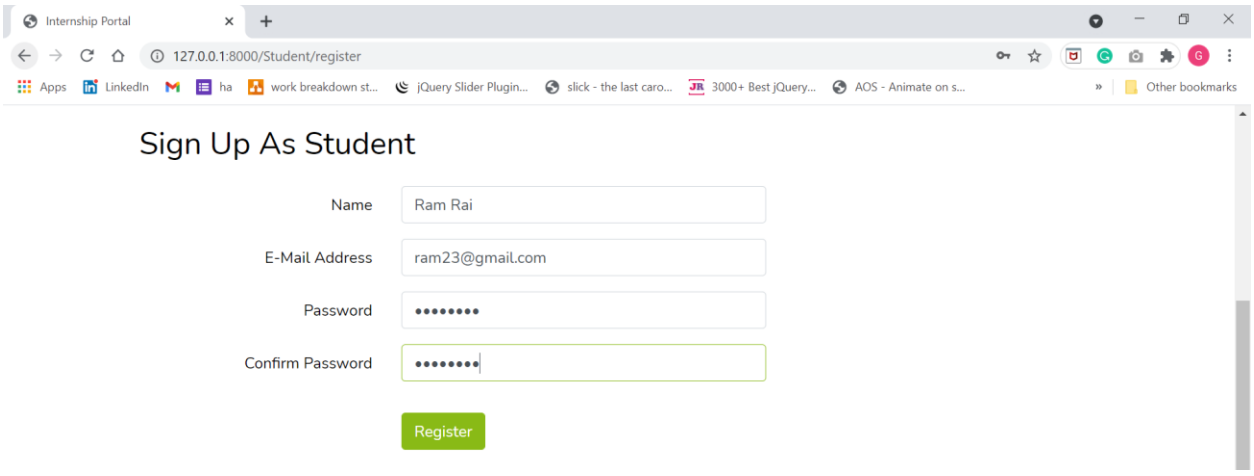

Figure 53: New Student fills up the registration form for registration.

	id	name	email	email_verified_at	password	rem
Edit Copy Delete	1	Admin	admin@girija.com	NULL	$2y$10$0Oyt6JWijp6q2w/bX4r3cOyuQQ2xVwZq9eY2hpoSPa5...	NU
Edit Copy Delete	2	User	user@girija.com	NULL	$2y$10$dUmiGm5.xTF0zTbyb8AXuuJMEuwyuOz9ofH8aqzfpbm...	NU
Edit Copy Delete	3	Girija Tamang	girija@gmail.com	NULL	$2y$10$n2pLzXm.7eL68E6eKilege.3PBR4xCRzDpMTqjL9RTB...	NU
Edit Copy Delete	4	Nepal Hacker	nepalcompany@gmail.com	NULL	$2y$10$LDSQLsDryy7maMxX1UlSUuLyMRD.1Ed.PKGisfnb5u2...	NU
Edit Copy Delete	5	Girija Tamang	girijatamang23@gmail.com	NULL	$2y$10$G/JBq/eICREoDYiOE3m4fu2r3z9pU/IMpp1hcppVNOi...	NU
Edit Copy Delete	6	Ram Rai	ram23@gmail.com	NULL	$2y$10$3XJE5XTUn6apTeIFTwGxmuuqaDpghTPYGqPaUnPxegk...	NU

Figure 54: New Student User added to database.

Test 4. To check for empty field validation in Login Form.

Objective	To check for empty field validation in Login Form.
Action	User clicks on Login Button without filling the fields.
Expected Result	Validation message should be shown, and login should be denied.
Actual Result	Validation message is shown, and login should be denied.
Conclusion	Test successful

Table 25: To check for empty field validation in Login Form.

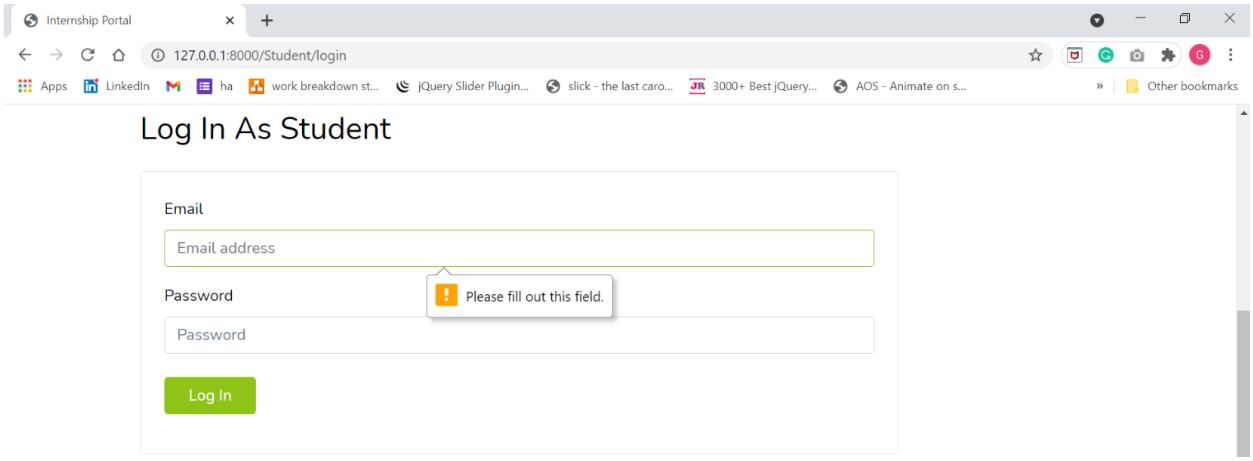

Figure 55: Login Form Validation.

Test 5. To check if registration form is validated or not.

Objective	To check if registration form is validated or not.
Action	User clicks on Register Button without filling the fields.
Expected Result	Validation message should be shown, and register should be denied.
Actual Result	Validation message is shown, and register should be denied.
Conclusion	Test successful

Table 26: To check if registration form is validated or not.

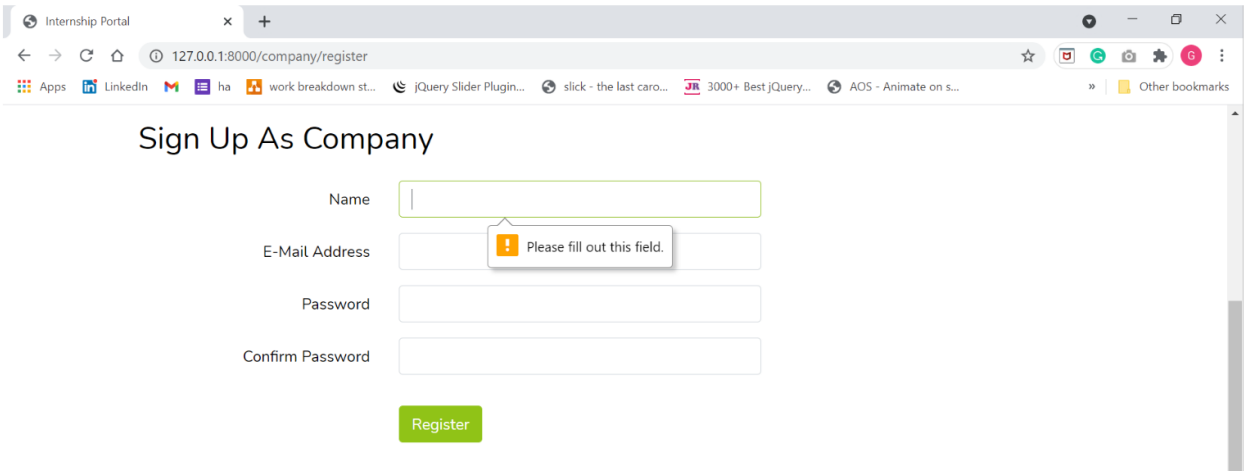

Figure 56: Register Form Validation.

Test 6. To check if user can register with the email that already exists.

Objective	To check if user can register with the email that already exists.
Action	User fills up the form and inserts email that is already taken.
Expected Result	Validation message should be shown, and registration should be denied.
Actual Result	Validation message is shown, and registration should be denied.
Conclusion	Test successful

Figure 57: To check if user can register with the email that already exists.

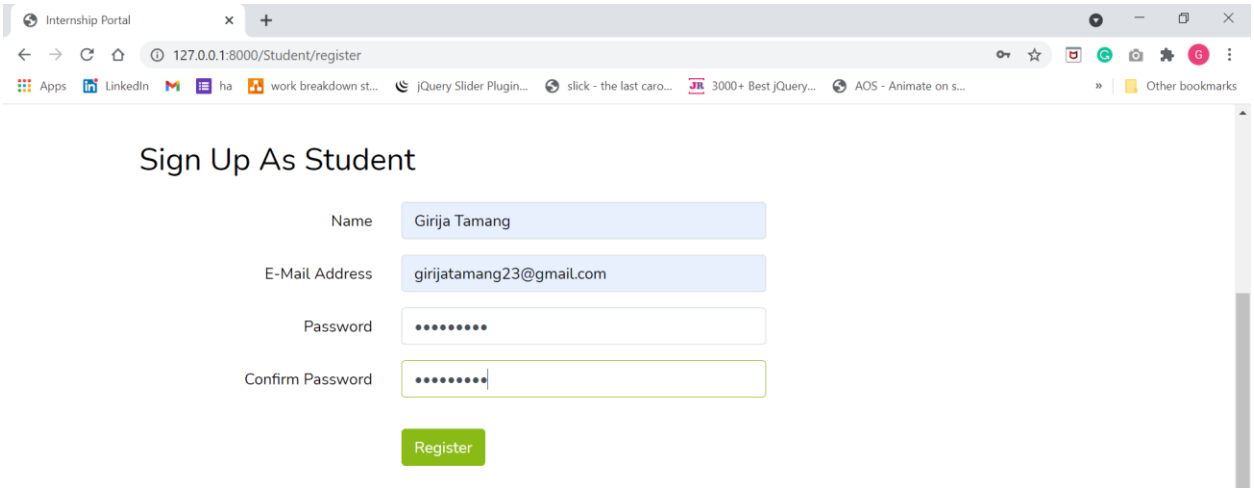

Figure 58: Registration form filled with email already taken.

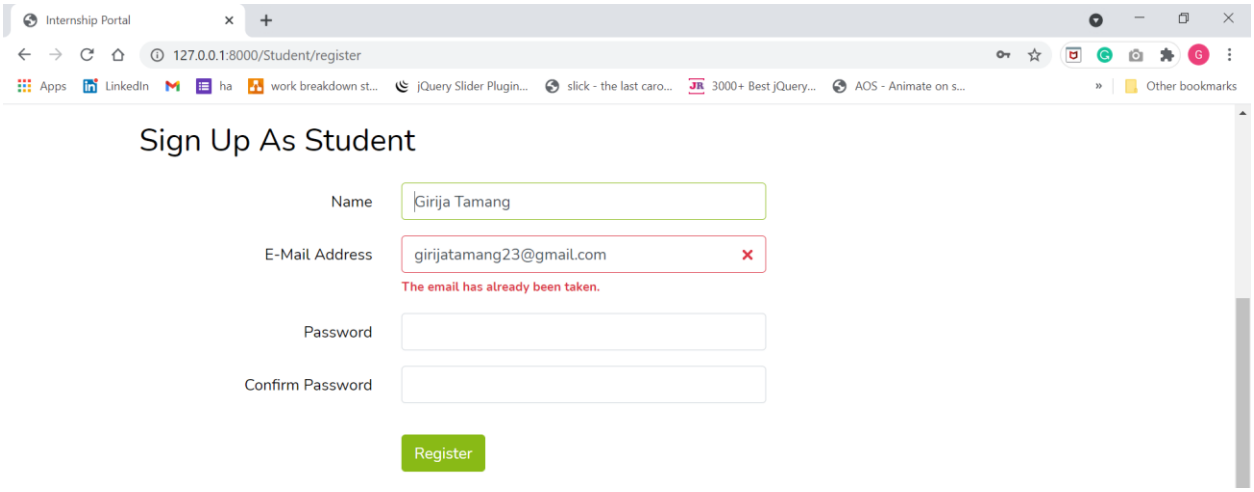

Figure 59: Validation message:" the email has already been taken.".

Test 7. To check if form is validated when applying for internship.

Objective	To check if form is validated when applying for internship.
Action	User clicks on apply button without filling the fields.
Expected Result	Validation message should be shown and applying internship should be denied.
Actual Result	Validation message is shown and applying internship should be denied.
Conclusion	Test successful

Table 27: To check if form is validated when applying for internship.

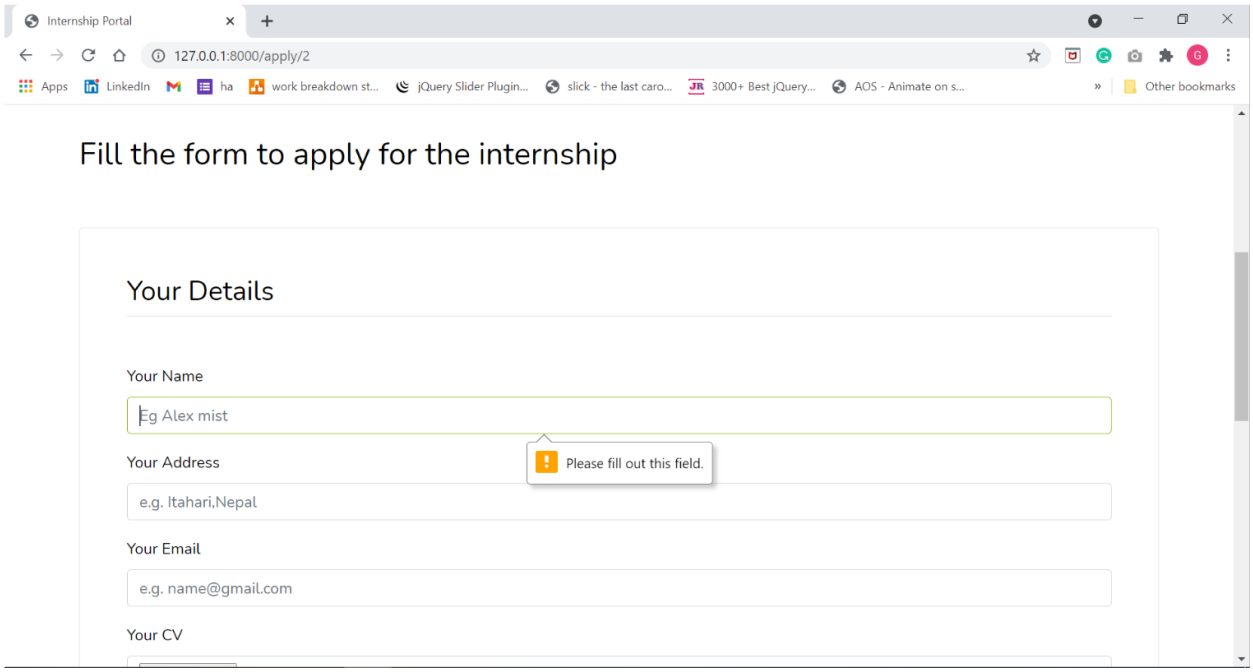

Figure 60: Form Validation for applying internship.

4.4. Critical Analysis

The system has been tested using two methods, the Unit Testing and System Testing. The testing was done on the basis of requirement of the system.

4.4.1 System Testing

The system testing is performed to ensure that the software product is complete and required features are implemented. Testing was carried out in accordance with the requirements of the system. Before beginning the actual testing, various Testing plans were identified. This test is done to ensure that the system ran smoothly and without errors. System Testing was completed successfully because every test result yielded anticipated outcomes.

4.4.2 Unit Testing

Specific units/components of software are tested using unit testing. The testing primarily focuses on a single functionality, allowing us to ensure that all components were validated and checked. The test was run to ensure that the code was being used properly and to identify any errors or bugs in the software. The unit testing was completed successfully, and no errors or bugs were discovered.

Chapter 5: Conclusion

In the 21st century any web applications can be built for a wide range of purposes and used by all people, from businesses to individuals, for several reasons. This project is about replacing traditional ways of finding internships and applying for intern placement. This project gave me an opportunity to learn a new framework, help me to develop web application which will help students in searching for internships.

This web application project was developed using the php framework Laravel in its backend, MySQL in the database part and frontend was developed using HTML5, JavaScript, CSS, and bootstrap.

5.1 Legal, Social and Ethical Issues

This chapter delves into the numerous problems that occur after the application has been released to the public. Below, we will go through some of the legal, social, and ethical problems that might occur and how to prevent them.

5.1.1 Legal Issues

The development, as well as the entire project, does not break any laws that would result in legal action. The platform and tools used during development are both open source and accessible online. There was no use of pirated software because all of the integrated tools are mentioned in this study. I have conducted a trademark check before adopting a product name, service name, logo, or slogan to ensure that it does not infringe on the rights of others. The only legal steps that must be done during the deployment of this project is registering the domain of the website.

5.1.2 Social Issues.

This project does not raise any social problems that might arise in society. Since no group of people is prohibited from using this application, it does not reflect or appear to represent any form of discrimination between races. This project does not hamper any political or religious views of people. Ensuring security and privacy of customer data is the main aim of this project. This application does not promote any kind of fake information that creates problem any students life.

5.1.3 Ethical Issues

Since all documents taken or copied from the internet are appropriately referenced, this project does not raise any ethical concerns. No other people's codes are used without their permission, and they are not claimed as mine. This web application ensures that genuine information is posted and transferred to our users. This application ensure that it applies adequate security to the system to ensure sensitive information is not leaked as well as take adequate measures to mitigate consequences of any hacks on this system.

5.2 Advantages

The major advantages of internship web portal are as follows:

- Internship web portal works for 24/7, this gives an opportunity for students to apply for internship anytime they want.
- Companies will have less hassle with managing and posting the internship vacancies. They can easily add, edit, delete their internship details with a simple touch of buttons.
- Avoid chaos in registering new users. Users can directly register and login to the system.
- Students can get an opportunity to choose the interested internship from this portal. Students can easily search the vacancies with their detailed information of the company.
- It saves a lot of time, money as most of the process is online.
- This application is fully functional and flexible and easy to use.
- Low wastage of funds and money on papers and manpower.
- Easy opportunity for students to apply for internships without visiting companies.

5.3 Limitations

Since every application has its own good features and some limitations. Some of the limitations for this project are as follows:

- Reliable internet access will be required to use this application.
- There is no manual included with the application. As a result, it may be difficult to comprehend how the program works.
- The limitation of this application is that it does not have a login feature using Facebook, google and other third-party apps. Users must manually log in to the program by entering their email address and password. This is also a temporary restriction, as this functionality will be introduced soon.
- The system lacks a notification system.

There may be additional limitations in addition to those mentioned above. However, these can be solved in the future by continuous application improvisation.

5.4 Further Works

The development of the system done in this project is still in its early stages. There are several features that could be enhanced or applied to the system. The following are some of the potential improvements that can be made to improve the system's reliability, performance, and market competitiveness.

- Adding location search feature
- Adding g Notification feature
- Adding automatic deletion feature
- Adding logging with Facebook and Google features.
- Implementing Chabot’s.

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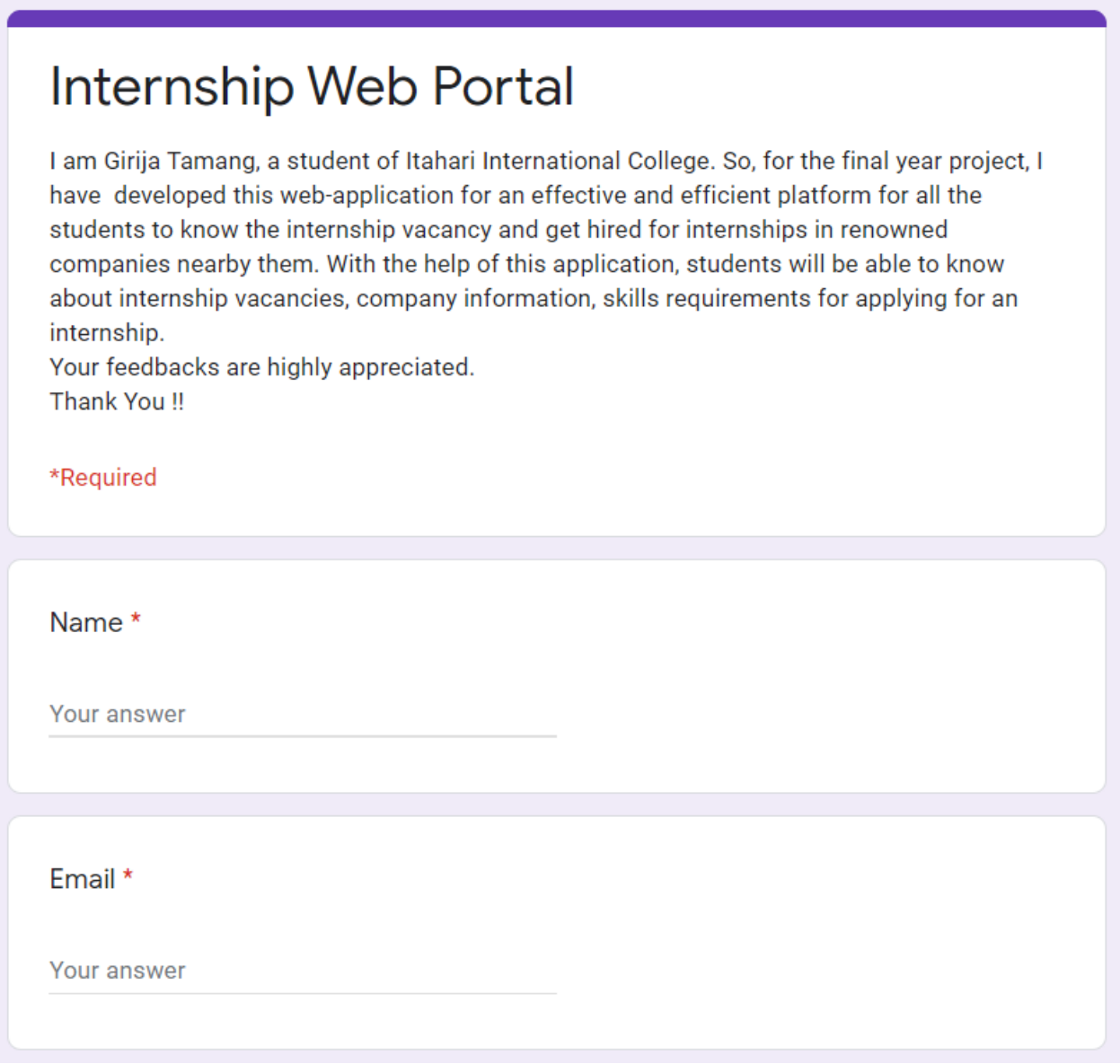
Chapter 7: Appendix

7.1 Appendix A: Pre-Survey

7.1.1 Pre-Survey Form



Internship Web Portal

I am Girija Tamang, a student of Itahari International College. So, for the final year project, I have developed this web-application for an effective and efficient platform for all the students to know the internship vacancy and get hired for internships in renowned companies nearby them. With the help of this application, students will be able to know about internship vacancies, company information, skills requirements for applying for an internship.
Your feedbacks are highly appreciated.
Thank You !!

*Required

Name *

Your answer

Email *

Your answer

How do you search for an internship vacancy? *

- ◯ Social Medias
- ◯ Visiting Companies
- ◯ Websites/Web Portal
- ◯ Others

Have you ever used an online system for finding Internships? *

- ◯ Yes
- ◯ No
- ◯ Maybe

Do you prefer applying for an internship through a web portal? *

- ◯ Yes
- ◯ No
- ◯ Maybe

Have you found detailed information about internship vacancies on websites or other web application? *

- ◯ Yes
- ◯ No
- ◯ Maybe

What are the problems that you have faced while searching for internships? *

Your answer

How do you prefer getting the information about internship vacancies? *

- ◯ Surfing over the internet
- ◯ Direct contact with company
- ◯ Use Internship related web application

Do you think this proposed system will be useful for finding internships?

- ◯ Yes
- ◯ No
- ◯ Maybe
- ◯ Not Sure

If you have ever used a similar type of system then, what is the name of the system and what is the positive aspect of that particular system? *

Your answer

What improvements do you like to see in the upcoming web application? what other features might be included in the application? *

Your answer

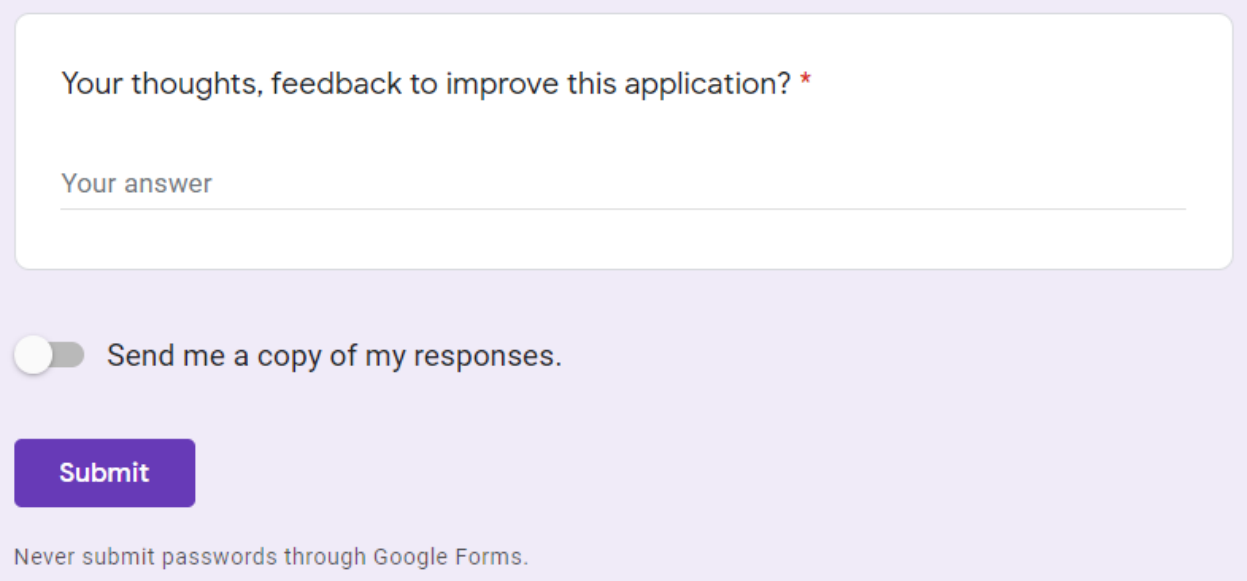
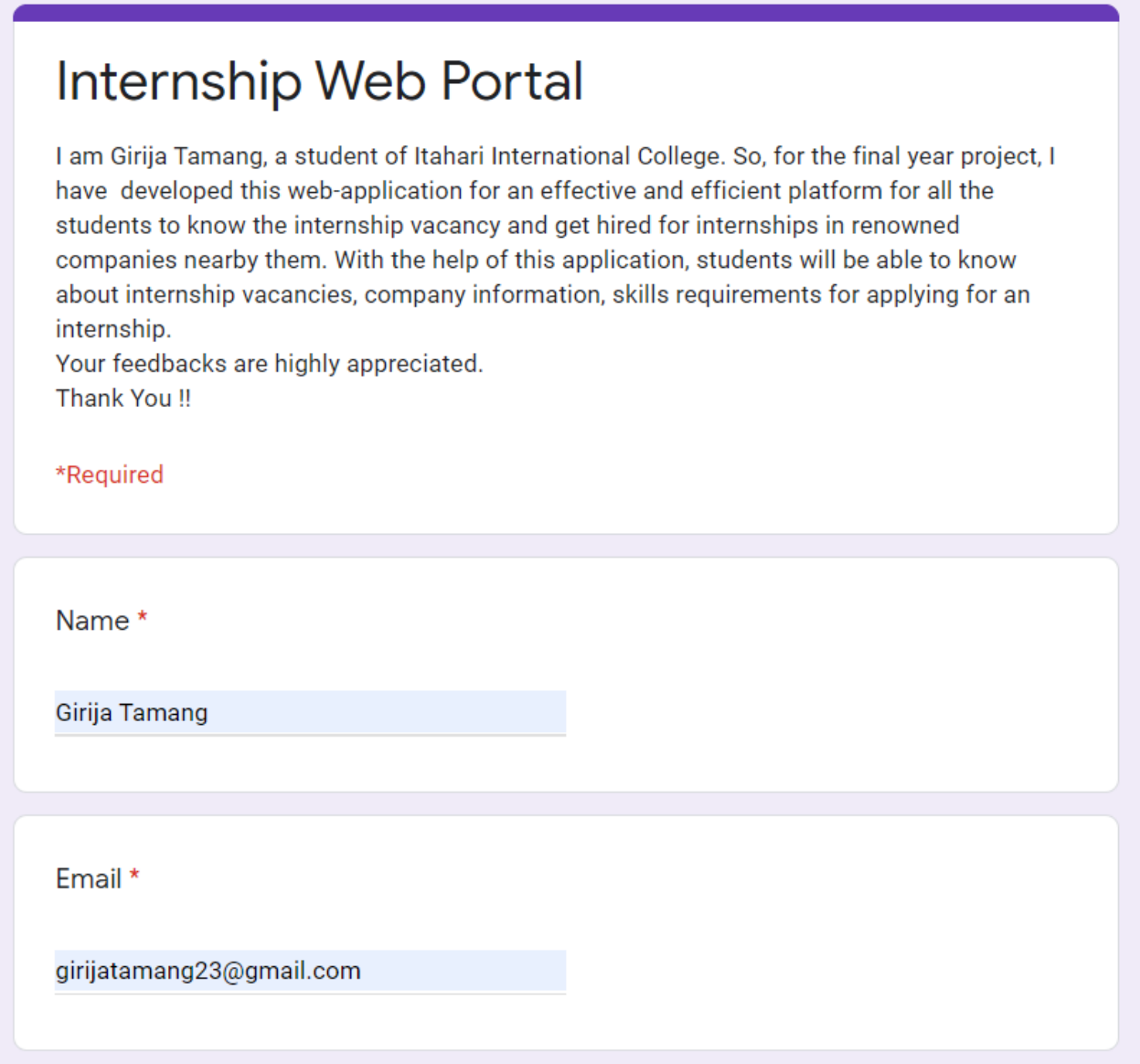


Figure 61: Pre-survey form.

7.1.2 Sample of Filled Pre-Survey Forms



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Your feedbacks are highly appreciated.
Thank You !!

*Required

Name *

Girija Tamang

Email *

girijatamang23@gmail.com

How do you search for an internship vacancy? *

- ○ Social Medias
- ○ Visiting Companies
- ◉ Websites/Web Portal
- ○ Others

Have you ever used an online system for finding Internships? *

- ◉ Yes
- ○ No
- ○ Maybe

Do you prefer applying for an internship through a web portal? *

- ◉ Yes
- ○ No
- ○ Maybe

Have you found detailed information about internship vacancies on websites or other web application? *

- ( ) Yes
- (•) No
- ( ) Maybe

What are the problems that you have faced while searching for internships? *

most of the online website gives fake information

How do you prefer getting the information about internship vacancies? *

- (•) Surfing over the internet
- ( ) Direct contact with company
- ( ) Use Internship related web application

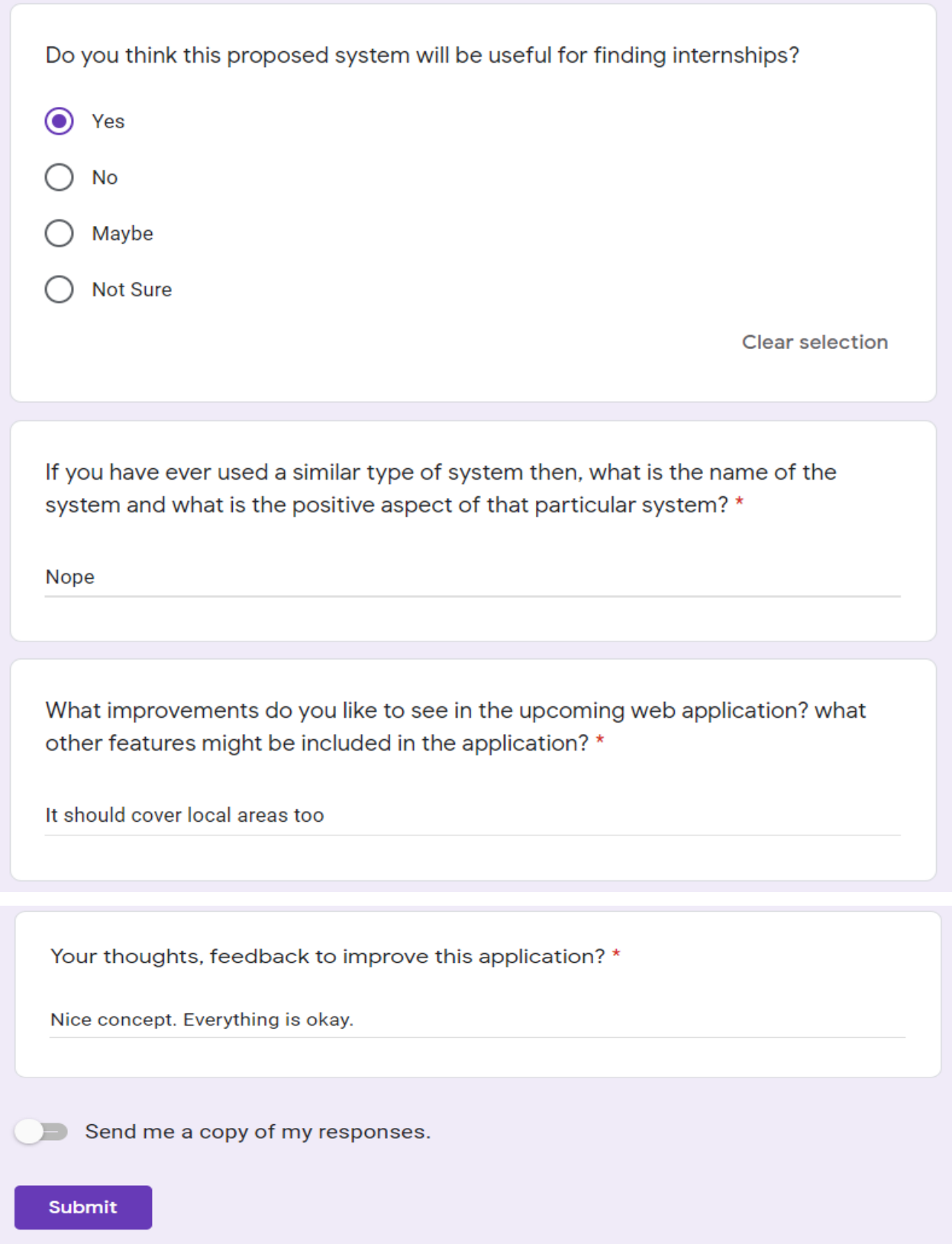
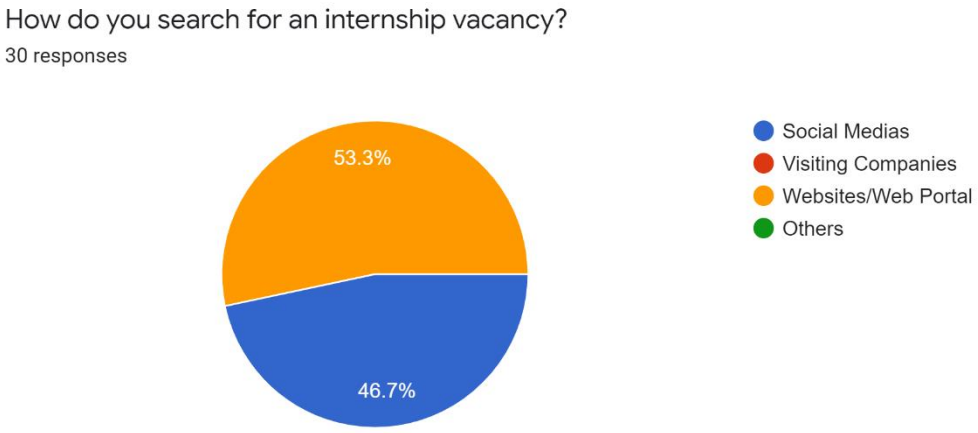


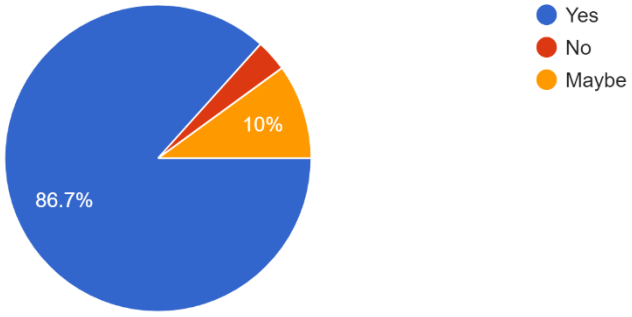
Figure 62: Sample of filled Pre-Survey Form.

7.1.3 Pre-Survey Result



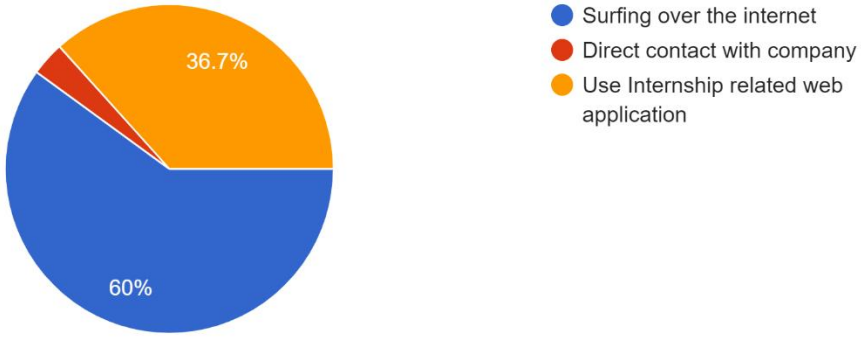
Have you ever used an online system for finding Internships?

30 responses



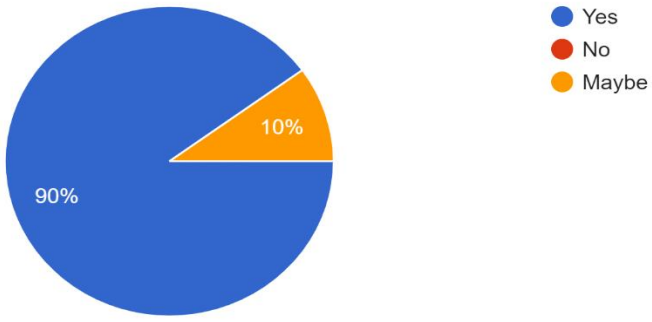
How do you prefer getting the information about internship vacancies?

30 responses

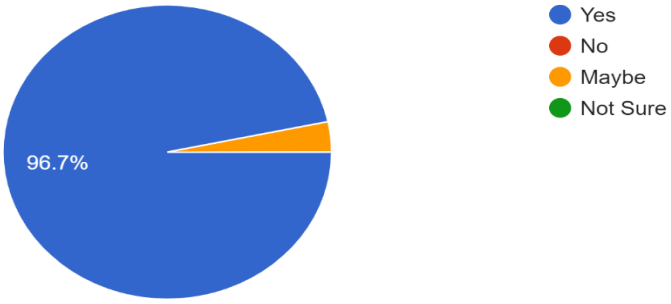


Do you prefer applying for an internship through a web portal?

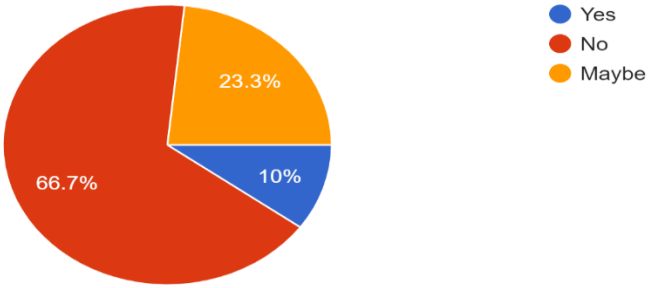
30 responses



Do you think this proposed system will be useful for finding internships?
30 responses



Have you found detailed information about internship vacancies on websites or other web application?
30 responses



What are the problems that you have faced while searching for internships?

30 responses

Unrealistic paid internship and lack of assurance that the company is genuine

a. No proper internships and internships positions details
b. Bad communication between internships seeker and internships provider.
c. Single and busy way for communication and getting other information for internships.
d. No proper portal or website for getting every kind of internships vacancy for every kinds and graded (classes like bachelor, masters)peoples.
e. User profile is not so much secure and reachable to the internships provider.
e. No reliable and less easy for searching multiple internships in a single web portal or platform.
f. Very hard, complex and messy GUI environment in internships web portals.
g. Competition With Other Interns
h. Unpaid or poorly paid internships and mostly limit of time and seats.
i. Difficult for freshers

I haven't found detail information about the company and their location.

Not providing detail information about the company.

Lack of information.

What improvements do you like to see in the upcoming web application? what other features might be included in the application?

30 responses

- It should cover local areas too
- I don't have much information about this type system
- Search filter
- Counselling features before joining internship
- Recommendations features
- get notified about new internships when registered as member.
- if there is no vacancy in company then the company should be remove.....
- No any idea.
- it should show the exact information as user wants

If you have ever used a similar type of system then, what is the name of the system and what is the positive aspect of that particular system?

30 responses

- No
- no
- Jobs Nepal
- i have not use yet
- I haven't use this type of system
- Nope
- I haven't use this type of system yet.
- Glassdoor, the positive aspect was that it had lots of vacancies opened for different kinds of jobs.
- linkedin

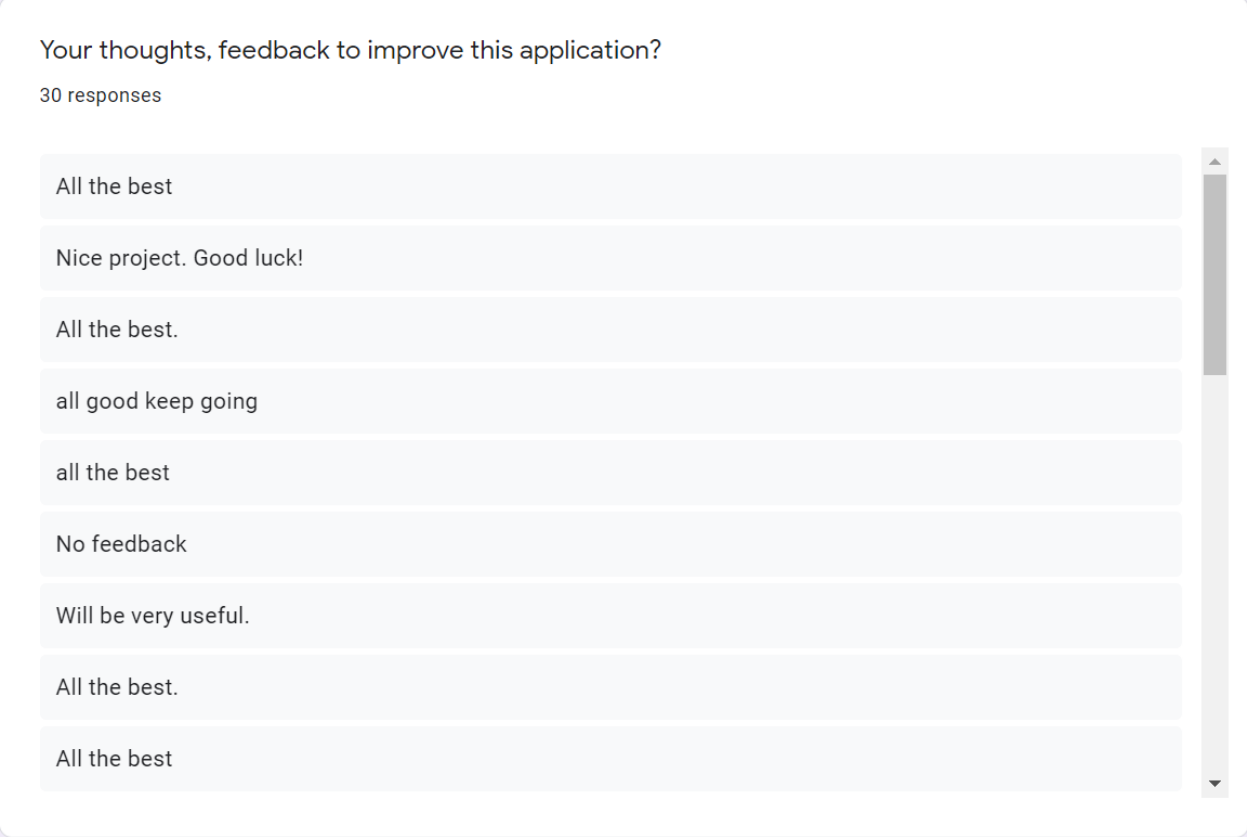
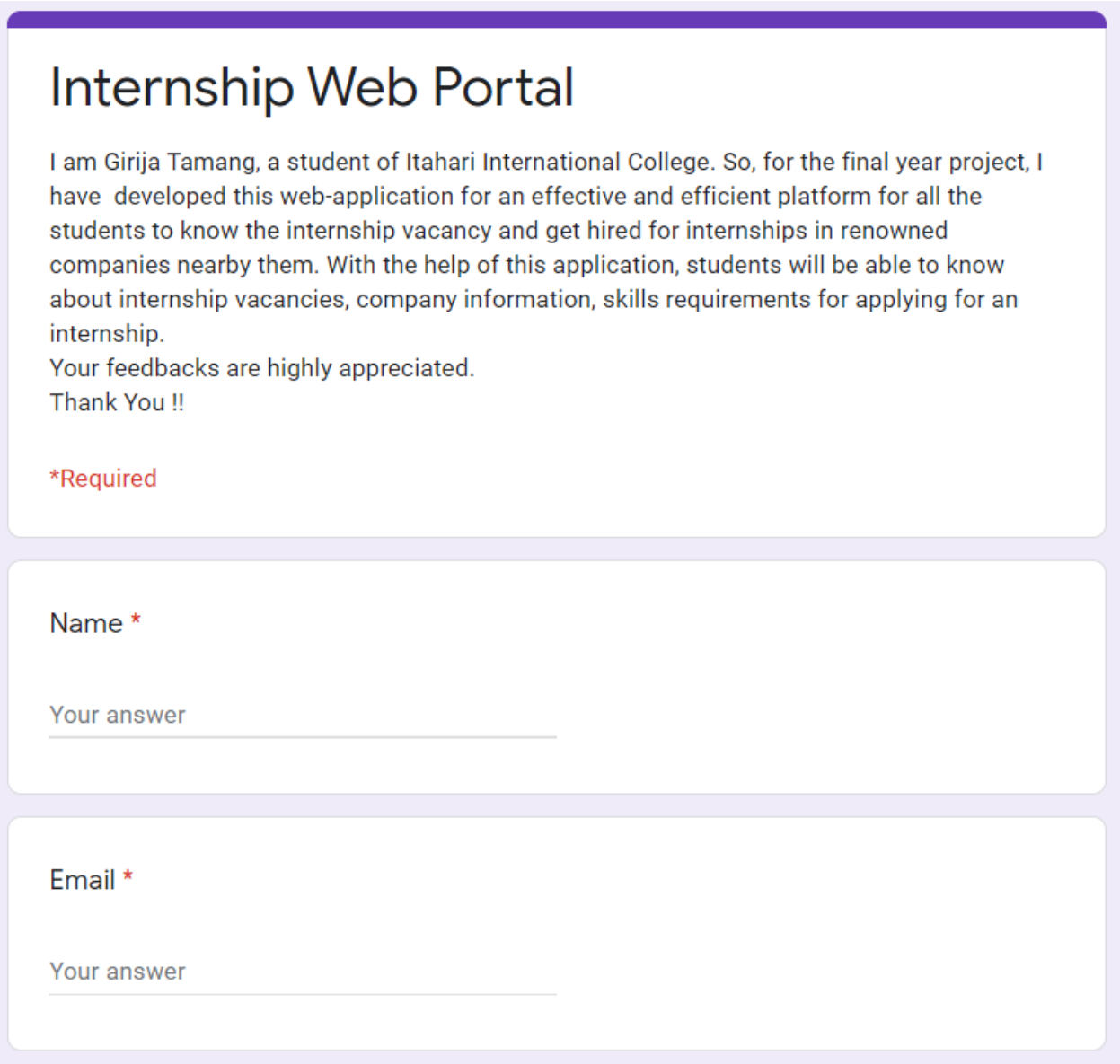


Figure 63: Pre-Survey Result.

7.2 Appendix B: Post-Survey

7.2.1 Post-Survey Form



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Your feedbacks are highly appreciated.
Thank You !!

*Required

Name *

Your answer

Email *

Your answer

How satisfied were you with this app? *

	1	2	3	4	5	
Bad	○	○	○	○	○	Pretty Good

Would you prefer using this application for applying internship? *

- ○ Yes
- ○ No
- ○ Maybe
- ○ Not Sure

How likely are you to recommend a friend or colleague about this web app? *

- ○ Yes
- ○ No
- ○ Maybe
- ○ Not Sure

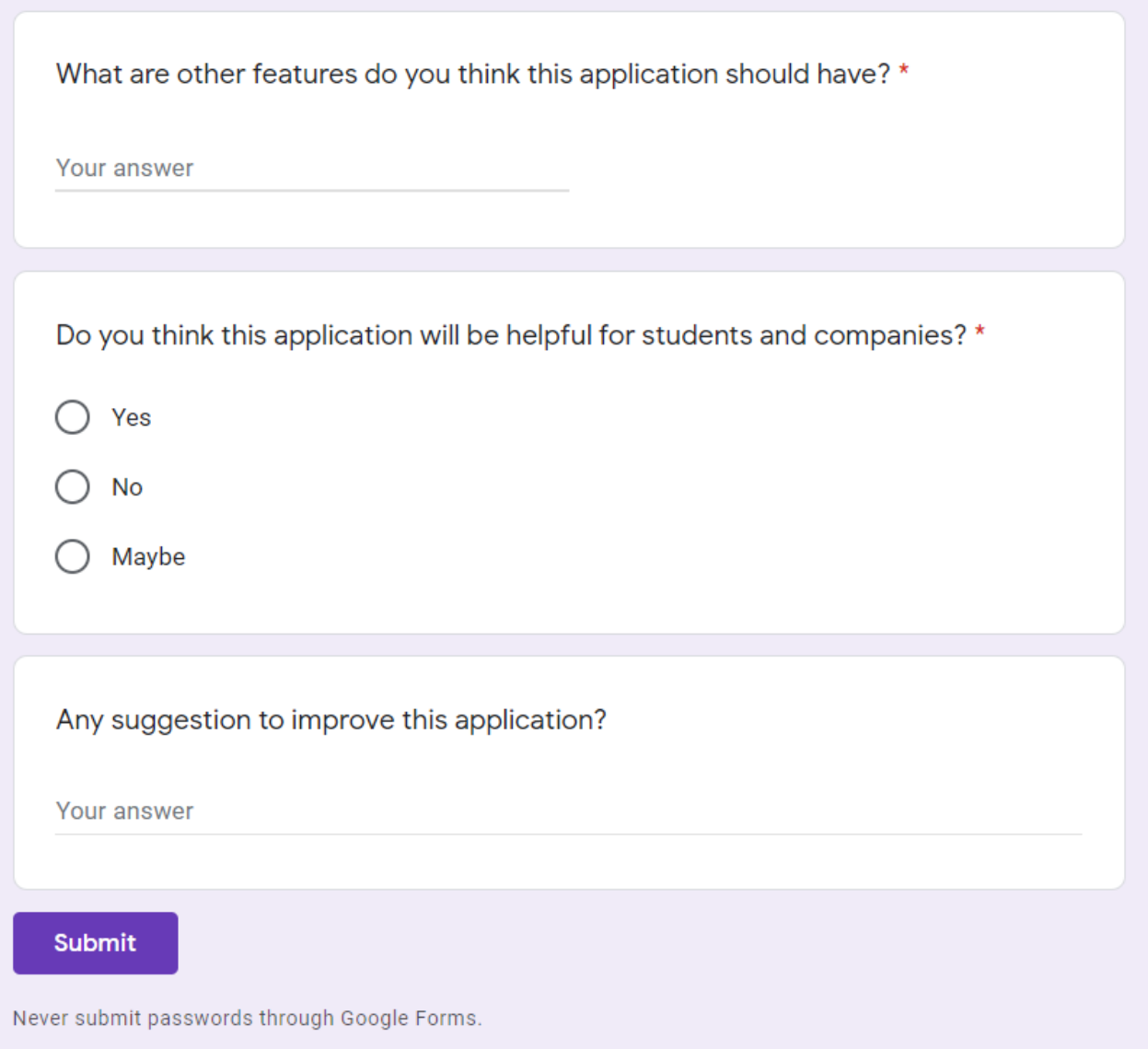
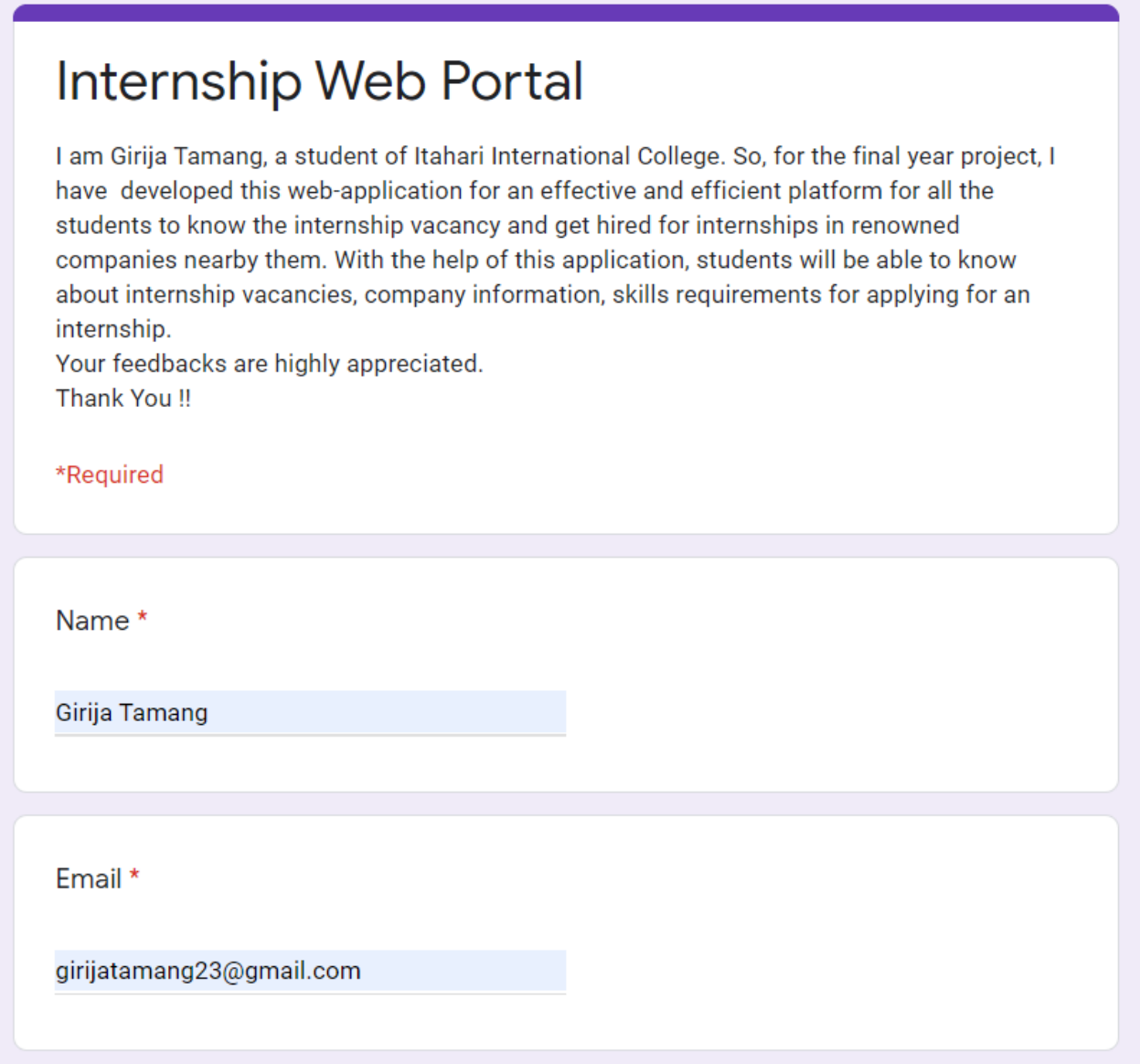


Figure 64: Post-Survey Form.

7.2.2 Sample of filled Post-Survey Forms



Internship Web Portal

I am Girija Tamang, a student of Itahari International College. So, for the final year project, I have developed this web-application for an effective and efficient platform for all the students to know the internship vacancy and get hired for internships in renowned companies nearby them. With the help of this application, students will be able to know about internship vacancies, company information, skills requirements for applying for an internship.
Your feedbacks are highly appreciated.
Thank You !!

*Required

Name *

Girija Tamang

Email *

girijatamang23@gmail.com

How satisfied were you with this app? *

	1	2	3	4	5	
Bad	○	○	○	◉	○	Pretty Good

Would you prefer using this application for applying internship? *

- ◉ Yes
- ○ No
- ○ Maybe
- ○ Not Sure

How likely are you to recommend a friend or colleague about this web app? *

- ◉ Yes
- ○ No
- ○ Maybe
- ○ Not Sure

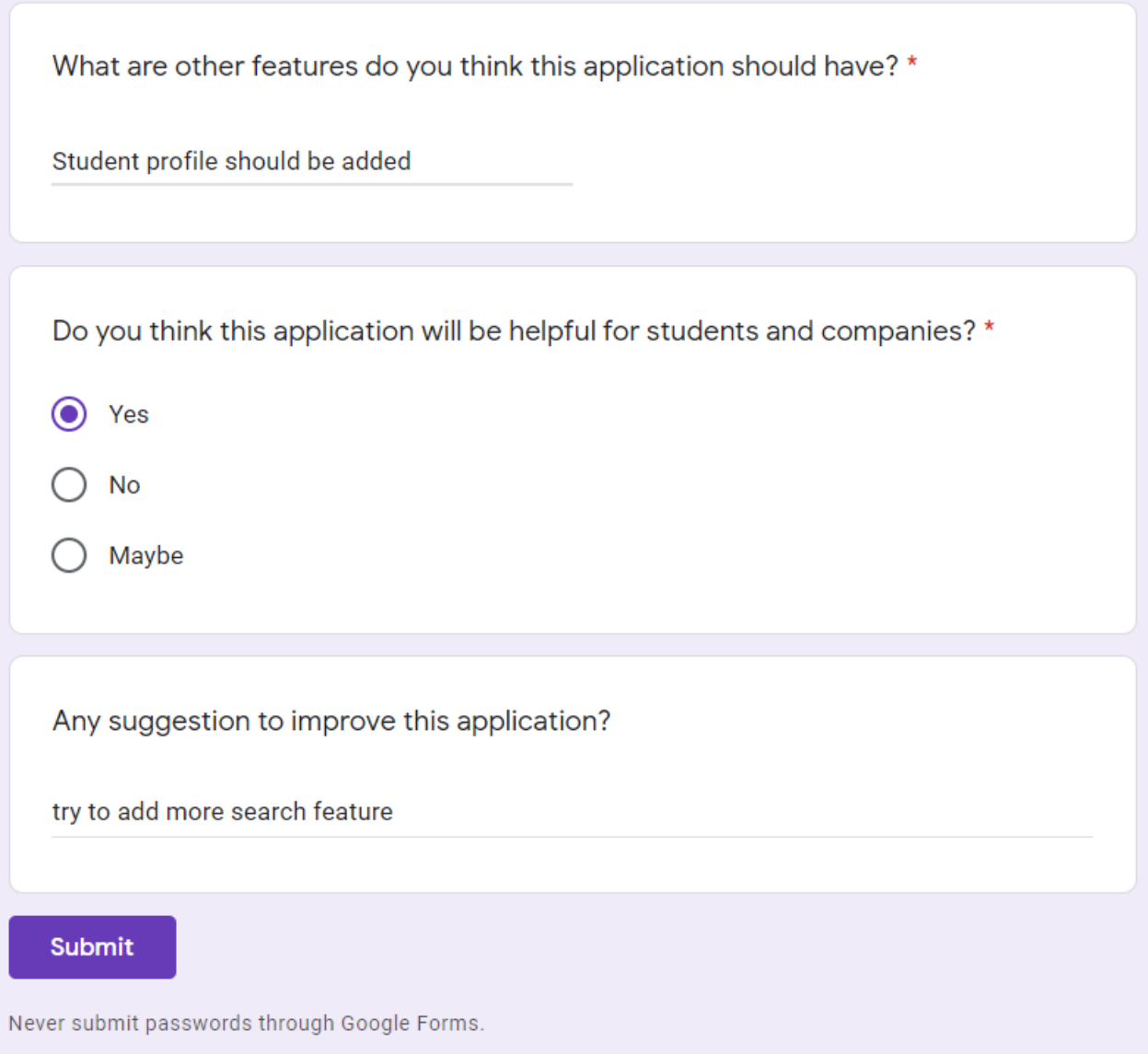
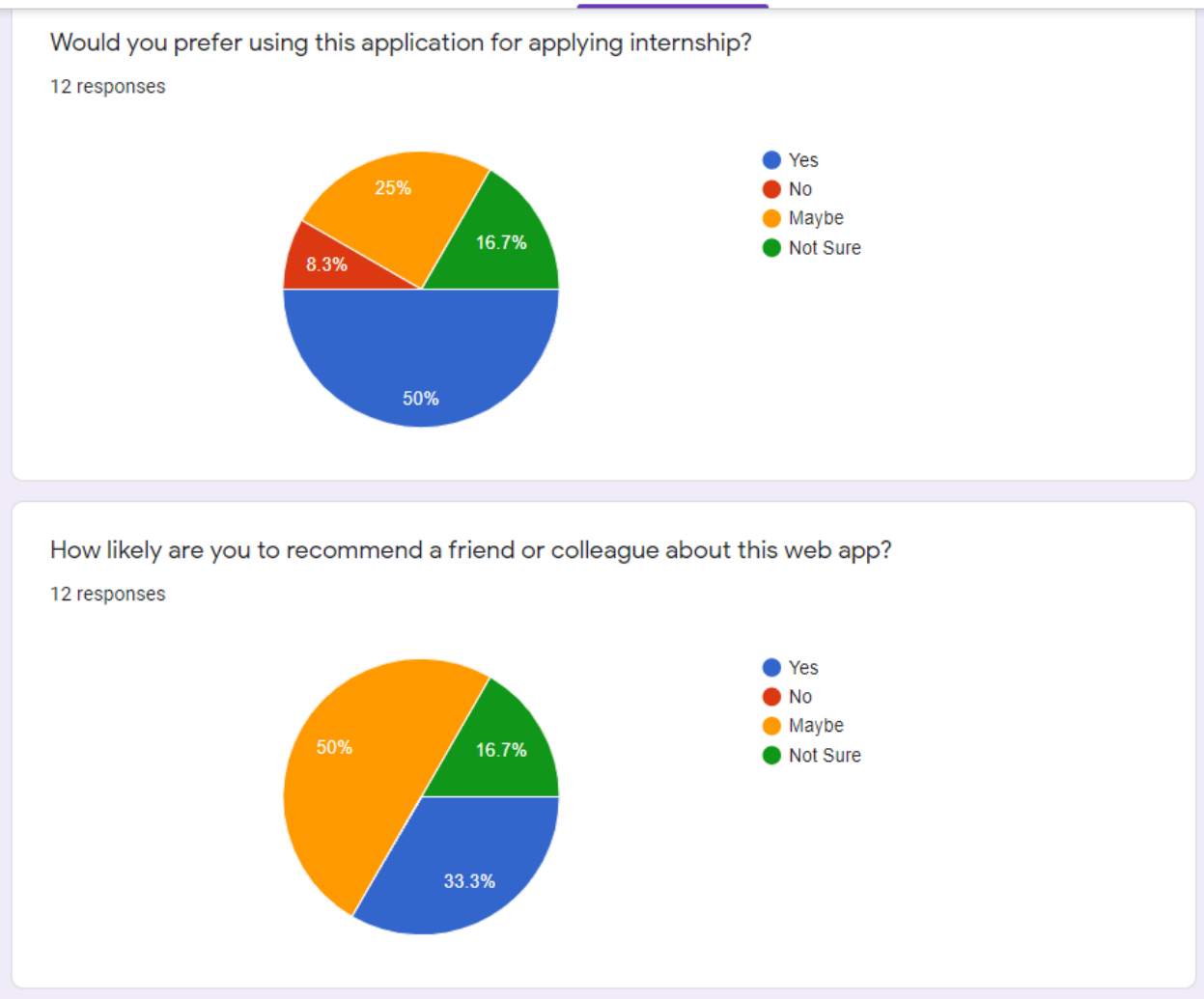


Figure 65: Sample of filled Post-Survey Forms.

7.2.3 Post-Survey Result



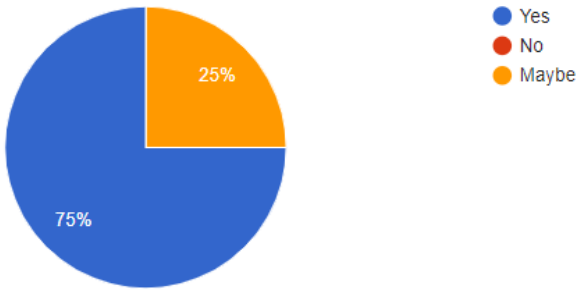
What are other features do you think this application should have?

12 responses

- Student profile should be added
- Internship recommendation
- Adding company location
- No idea
- Search by Location
- Add recommendation
- Add Share Option
- Noi idea
- rating company

Do you think this application will be helpful for students and companies?

12 responses



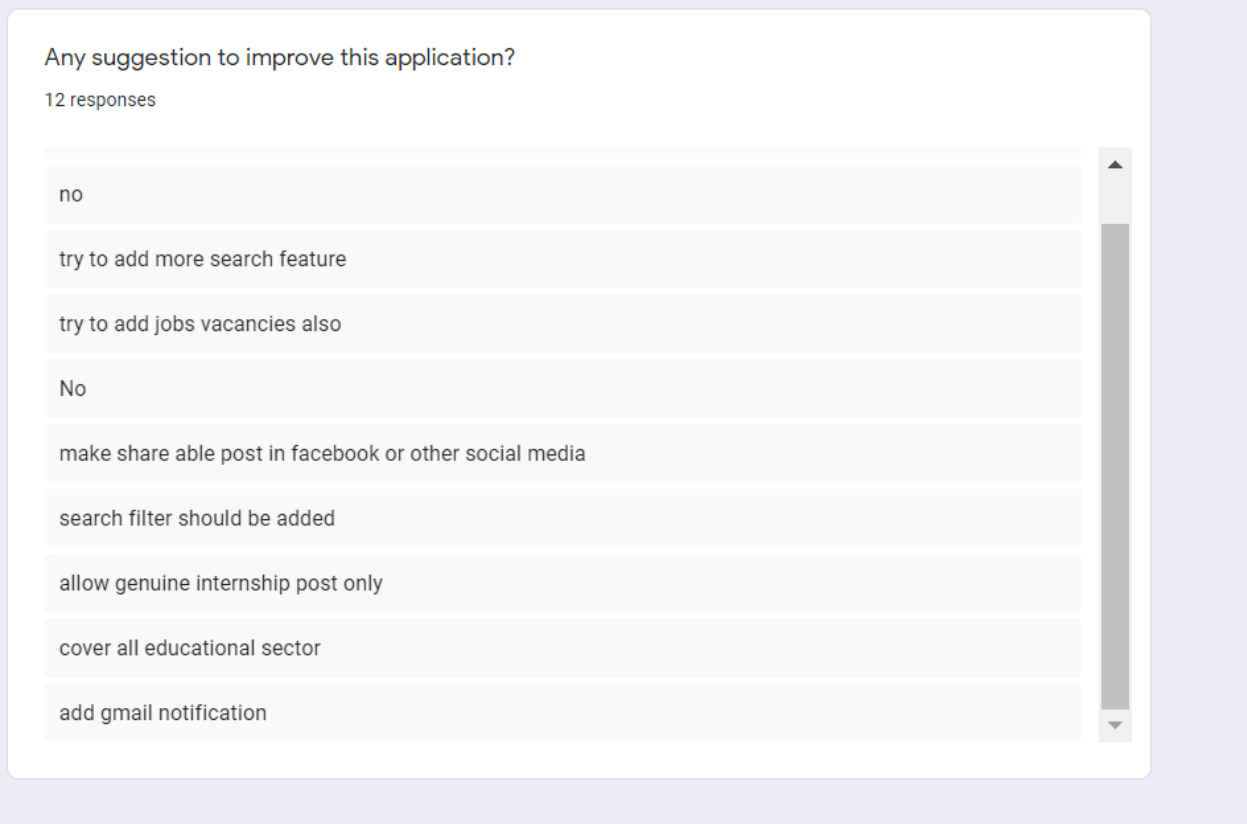


Figure 66: Post-Survey Results.

7.3 Appendix C: Sample Codes

7.3.1 Sample Code of the UI

1. Home page

```
<!-- NAVBAR -->
@include('frontend.includes.header')

<!-- HOME -->
<section class="home-section section-hero overlay bg-image" style="background-image: url('images/hero_1.jpg');" id="home-section">
  <div class="container">
    <div class="row align-items-center justify-content-center">
      <div class="col-md-12">
        <div class="mb-5 text-center">
          <h1 class="text-white font-weight-bold">The Easiest Way To Find Internship !!!</h1>
          <p>we are here you to find your internship </p>
        </div>
        <form method="post" action="{{route('search')}}" class="search-jobs-form">
        @csrf
          <div class="row mb-5">
            <div class="col-12 col-sm-6 col-md-6 col-lg-9 mb-4 mb-lg-0">
              <input type="text" name="job_title" class="form-control form-control-lg" placeholder="Job title, ">
            </div>

            <div class="col-12 col-sm-6 col-md-6 col-lg-3 mb-4 mb-lg-0">
              <button type="submit" class="btn btn-primary btn-lg btn-block text-white btn-search"><span class="icon-search icon mr-
            </div>
          </div>
        </form>
      </div>
    </div>
  </div>
  <a href="#next" class="scroll-button smoothscroll">
    <span class=" icon-keyboard_arrow_down"></span>
  </a>
</section>
```

Figure 67: Sample code for index page.

2. Company login

```
<!-- HOME -->
<section class="section-hero overlay inner-page bg-image" style="background-image: url('images/hero_1.jpg');" id="home-section">
  <div class="container">
    <div class="row">
      <div class="col-md-7">
        <h1 class="text-white font-weight-bold">Company Login</h1>
        <div class="custom-breadcrumbs">
          <a href="index.html">Home</a> <span class="mx-2 slash">/</span>
          <span class="text-white"><strong>Log In</strong></span>
        </div>
      </div>
    </div>
  </div>
</section>
<section class="site-section">
  <div class="container">
    <div class="row ml-5" >
      <div class="col-lg-9">
        <h2 class="mb-4">Log In As Company</h2>
        <form action="{{route('company.loggin')}}" method="post" class="p-4 border rounded">
          {{csrf_field()}}
          <div class="row form-group">
            <div class="col-md-12 mb-3 mb-md-0">
              <label class="text-black" for="fname">Email</label>
              <input type="text"  name="email" class="form-control" placeholder="Email address">
            </div>
          </div>
          <div class="row form-group mb-4">
            <div class="col-md-12 mb-3 mb-md-0">
              <label class="text-black" for="fname">Password</label>
              <input type="password" name="password"  class="form-control" placeholder="Password">
            </div>
          </div>

          <div class="row form-group">
            <div class="col-md-12">
```

Figure 68: Sample code for company login.

3. Company login

```
<!-- NAVBAR -->
@include('frontend.includes.header')

<!-- HOME -->
<section class="section-hero overlay inner-page bg-image" style="background-image: url('{{asset(
  <div class="container">
    <div class="row">
      <div class="col-md-7">
        <h1 class="text-white font-weight-bold">Sign Up</h1>
        <div class="custom-breadcrumbs">
          <a href="#">Home</a> <span class="mx-2 slash">/</span>
          <span class="text-white"><strong>Sign Up</strong></span>
        </div>
      </div>
    </div>
  </div>
</section>

<section class="site-section">
  <div class="container">
    <div class="row ml-5">
      <div class="col-lg-9 mb-5">
        <h2 class="mb-4">Sign Up As Company</h2>
        <form method="POST" action="{{ route('register') }}">
          @csrf

          <div class="form-group row">
            <label for="name" class="col-md-4 col-form-label text-md-right">{{ __('Name') }}</la

            <div class="col-md-6">
              <input id="name" type="text" class="form-control @error('name') is-invalid @enderr

              @error('name')
              <span class="invalid-feedback" role="alert">
                <strong>{{ $message }}</strong>
```

Figure 69: Sample code for company register.

4. Posting Internship

```
<section class="site-section">
  <div class="container">

    <div class="row align-items-center mb-5">
      <div class="col-lg-8 mb-4 mb-lg-0">
        <div class="d-flex align-items-center">
          <div>
            <h2>Post Internship</h2>
          </div>
        </div>
      </div>
      <div class="col-lg-4">
        <div class="row">
        </div>
      </div>
    </div>
    <div class="row mb-5">
      <div class="col-lg-12">
        <form class="p-4 p-md-5 border rounded" enctype="multipart/form-data" action="{{route('pubPost')}}" method="post">
          @csrf
          <h3 class="text-black mb-5 border-bottom pb-2">Internship Details</h3>
          <div class="form-group">
            <label for="job-title">Internship Title</label>
            <input type="text" name="job_title" class="form-control" placeholder="Product Designer" required>
          </div>
          <div class="form-group">
            <label for="job-location">Location</label>
            <input type="text" name="location" class="form-control" placeholder="e.g. New York" required>
          </div>
          <div class="form-group">
            <label for="job-type">Intenship Type</label>
            <select name="type" class="selectpicker border rounded" data-style="btn-black" data-width="100%" data-live-search="true"
              <option value="part time">Part Time</option>
              <option value="full time">Full Time</option>
            </select>
          </div>
```

Figure 70:Sample code for posting internship.

7.3.2 Sample code for the automation script

```
public function store(Request $request)
{

    $request->validate([
        'job_title' => 'required',
        'email' => 'required',
        'location' => 'required',
        'description' => 'required',
        'type' => 'required',
        'c_name' => 'required',
        'c_description' => 'required',
        'website' => 'required',
        'logo' => 'required',
        'user_id' => 'required',
        'vacancy'=>'required',
        'gender'=> 'required',
        'salary'=> 'required',
        'deadline' => 'required',
    ]);


    $logo = $request->logo;
    $logo_new = time(). $logo->getClientOriginalName();
    $logo->move('uploads/posts/logo/',$logo_new);

    Posts::create([
        'job_title'=>$request->job_title,
        'email'=>$request->email,
        'location'=>$request->location,
        'description'=>$request->description,
        'type'=>$request->type,
        'c_name'=>$request->c_name,
        'c_description'=>$request->job_title,
        'website'=>$request->website,
        'logo'=> 'uploads/posts/logo/'.$logo_new,
```

Figure 71: Sample code for post controller.

```php
<?php

namespace App\Http\Controllers;

use App\Models\Application;
use App\Models\contact;
use App\Models\Posts;
use App\Models\User;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\Auth;

class FrontendController extends Controller
{
    public function companyLoginPage(){
        return view('frontend.cmplogin');
    }
    public function studentLoginPage(){
        return view('frontend.stdlogin');
    }
    public function studentRegister(){
        return view('frontend.stdregister');
    }
    public function companyRegister(){
        return view('frontend.cmpregister');
    }
    public function internship()
    {
        $post = Posts::orderBy('created_at','desc')->get();
        return view('frontend.internship',compact('post'));
    }
    public function addPost()
    {
        return view('frontend.postjob');
    }
    public function viewPost()
    {
        $user = Auth::user()->id;
```

Figure 72: Sample code for frontend controller.

7.4 Appendix D: Designs

7.4.1 Work Breakdown Structure

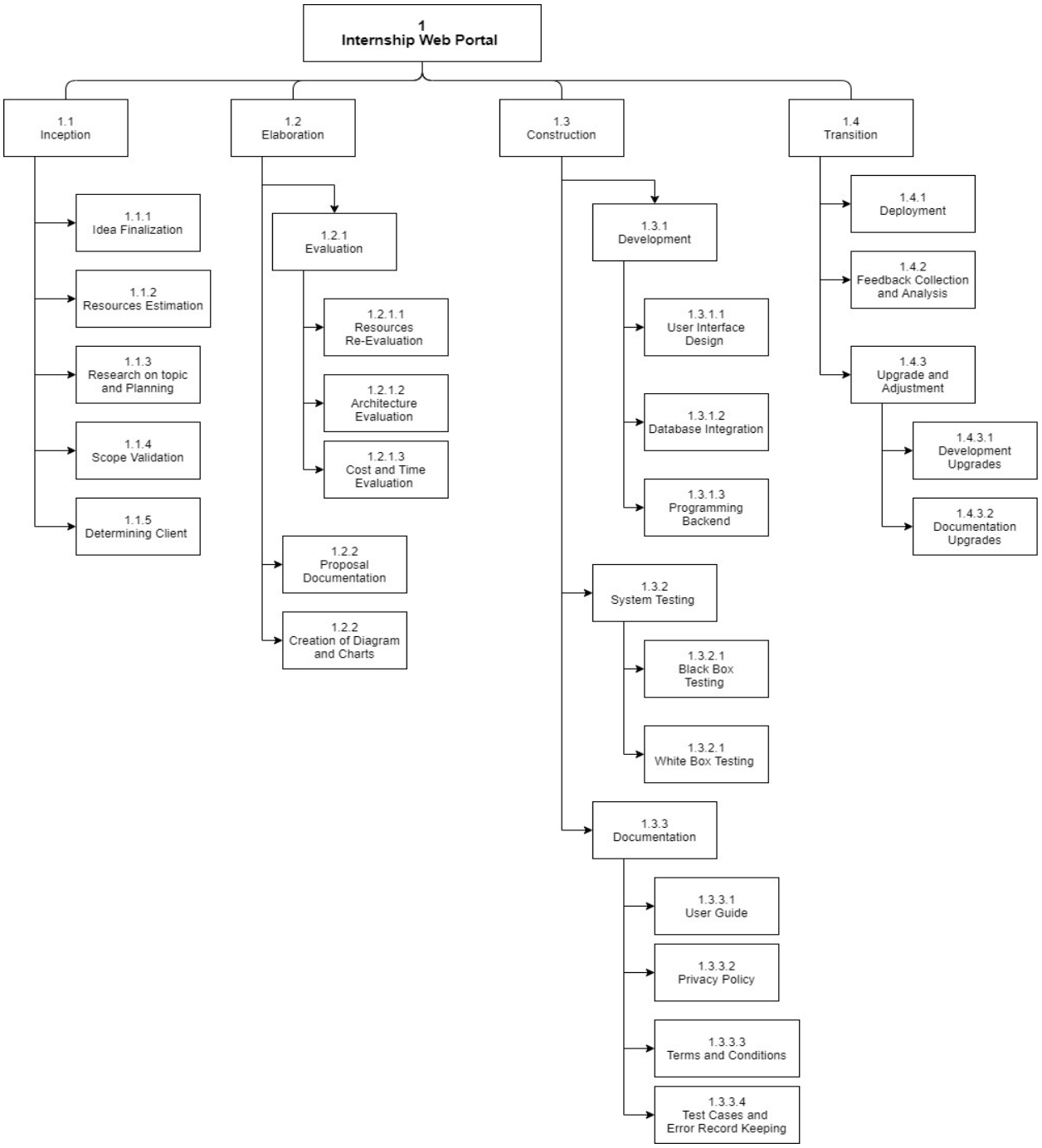


Figure 73: Work Breakdown Structure.

7.4.2 Gantt Chart

	Task Name	Duration	Start	ETA
	Internship Web Portal	8 months	01.10.2020	30.05.2021
1	Inception	1 month	01.10.2020	01.11.2020
1.1	Scheduling Resources	10 days	01.10.2020	10.10.2020
1.2	Cost and Time Management	5 days	11.10.2020	15.10.2020
1.3	Planning	5 days	16.10.2020	20.10.2020
1.4	Risk management	5 days	21.10.2020	25.10.2020
1.5	Prototype Development	5 days	26.10.2020	30.10.2020
2	Elaboration	2 months	02.11.2020	01.01.2021
2.1	Analysis of problem domain	20 days	02.11.2020	21.11.2020
2.2	Use Case Diagram Development	20 days	22.11.2020	11.12.2020
2.3	System Architecture Development	20 days	12.12.2020	01.01.2021
3	Construction	3 months	02.01.2021	3.03.2021
3.1	System Build	1 month	02.01.2021	31.01.2021
3.2	System Operational Manual	20 days	01.02.2021	20.02.2021
3.3	User Manual	10 days	21.02.2021	02.03.2021
3.4	Test Cases	1 month	03.03.2021	31.03.2021
4	Transition	2 month	01.04.2021	30.05.2021
4.1	Training	15 days	01.04.2021	15.04.2021
4.2	Beta Testing	15 days	16.04.2021	30.04.2021
4.3	Analysis Of User's Review	15 days	01.05.2021	15.05.2021
4.4	Supporting & Maintaing Product	15 days	16.05.2021	30.05.2021

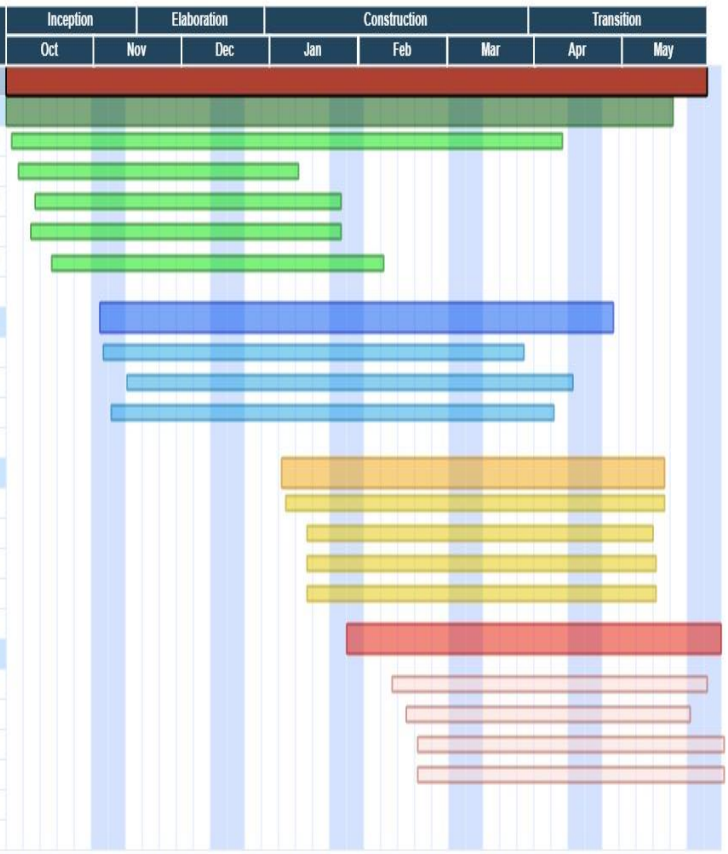


Figure 74:Gantt Chart.

7.4.3 Data Flow Diagrams

Context Level DFD

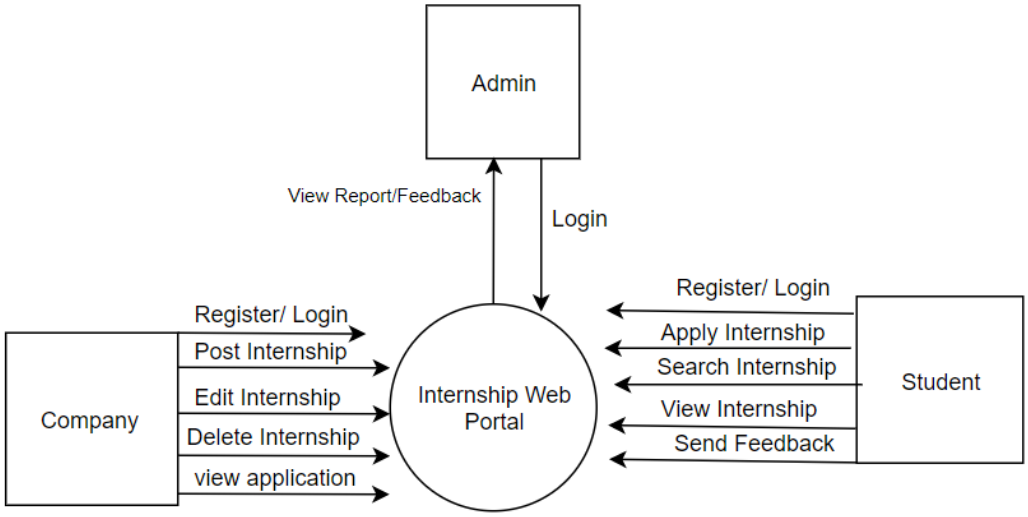


Figure 75: Context level DFD.

7.4.7 Use Case

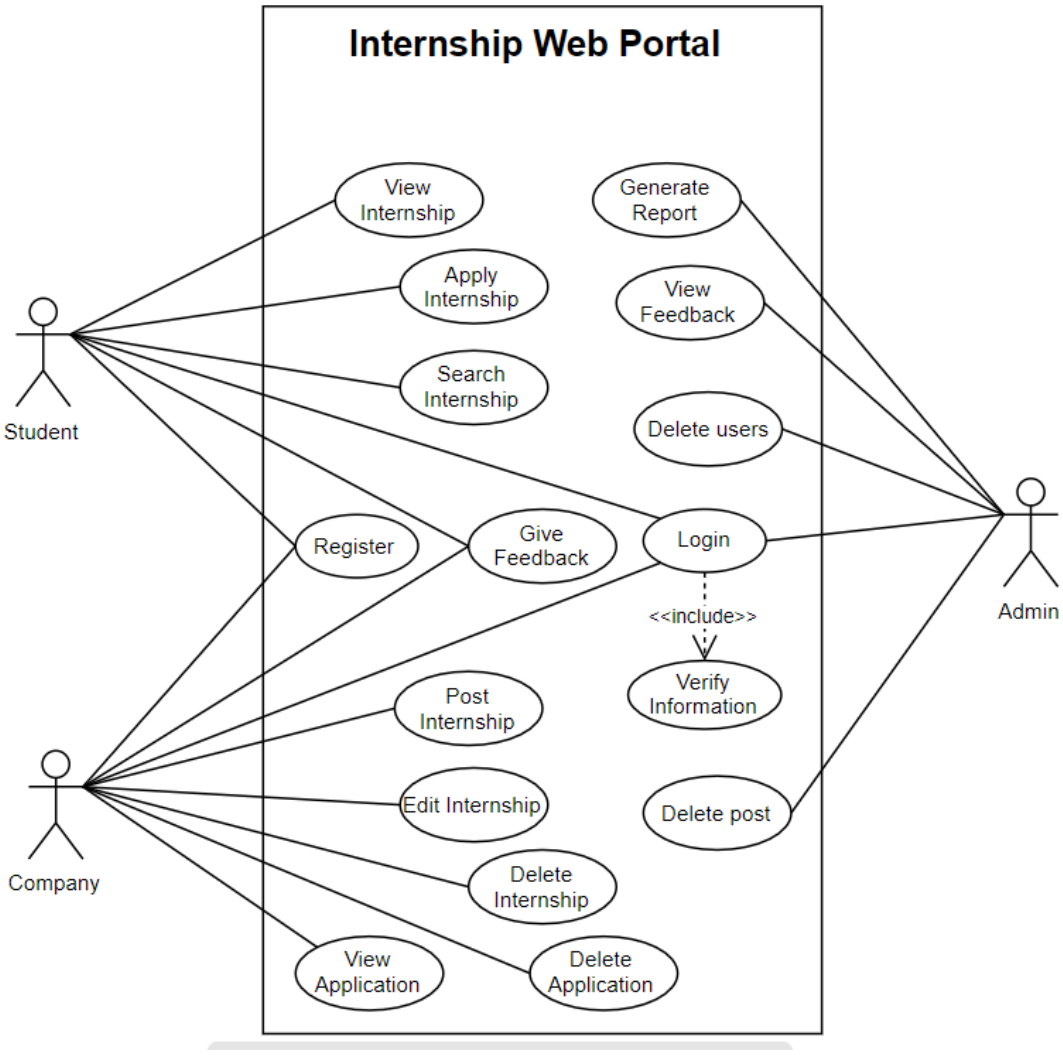


Figure 76: Use Case Diagram of System.

7.4.8 Wireframes

1. Student login and register wireframe

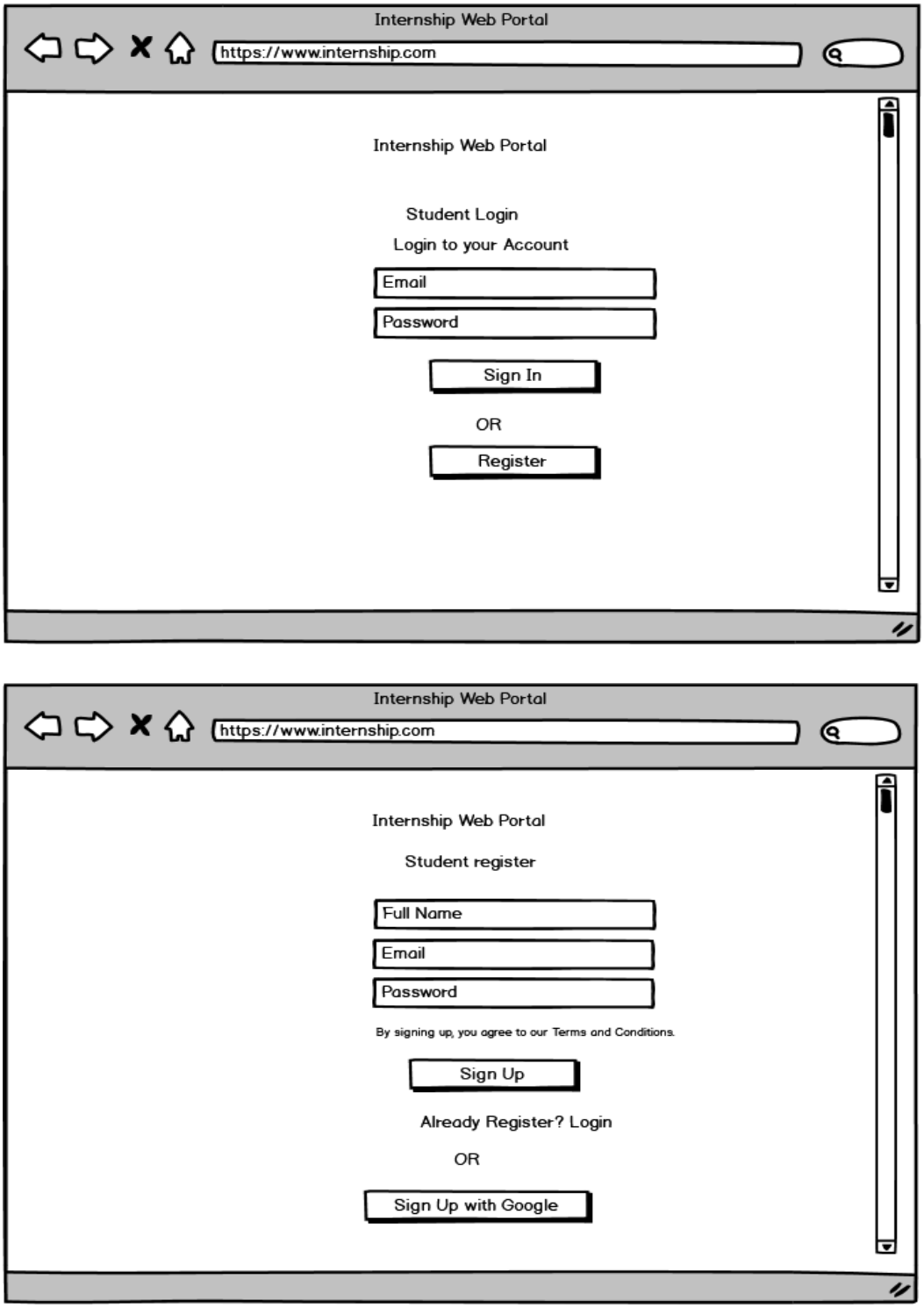
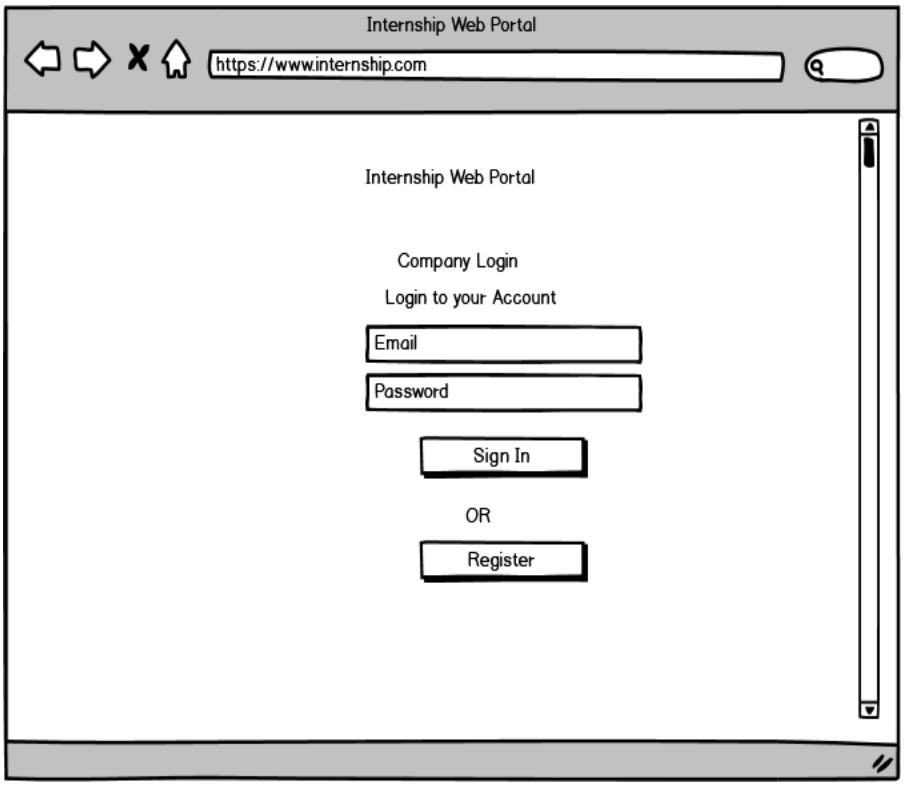


Figure 77: Student login and register wireframe.

2.Company login and register wireframe



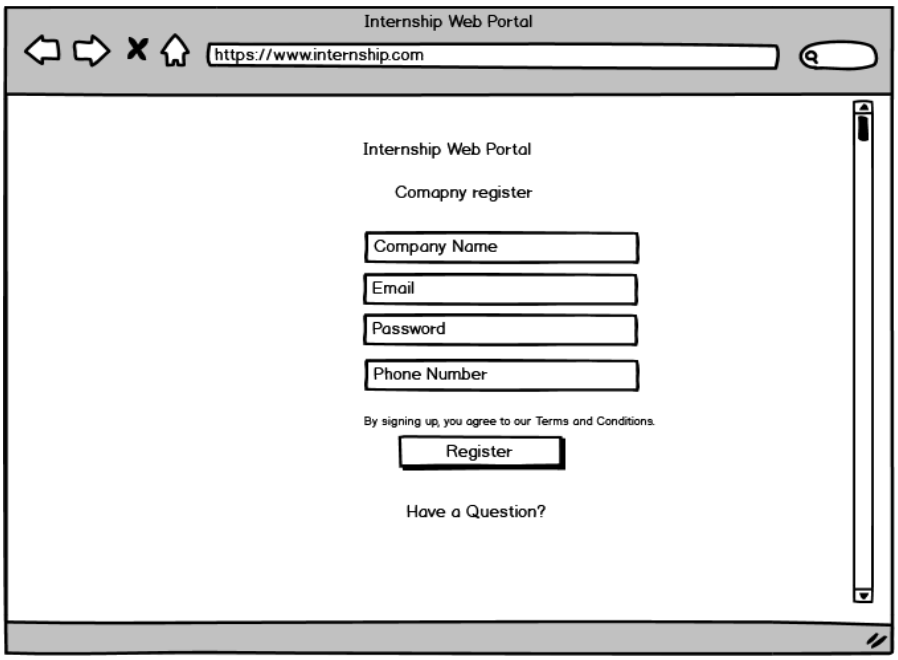


Figure 78:Company login and register wireframe.

3.Manage application

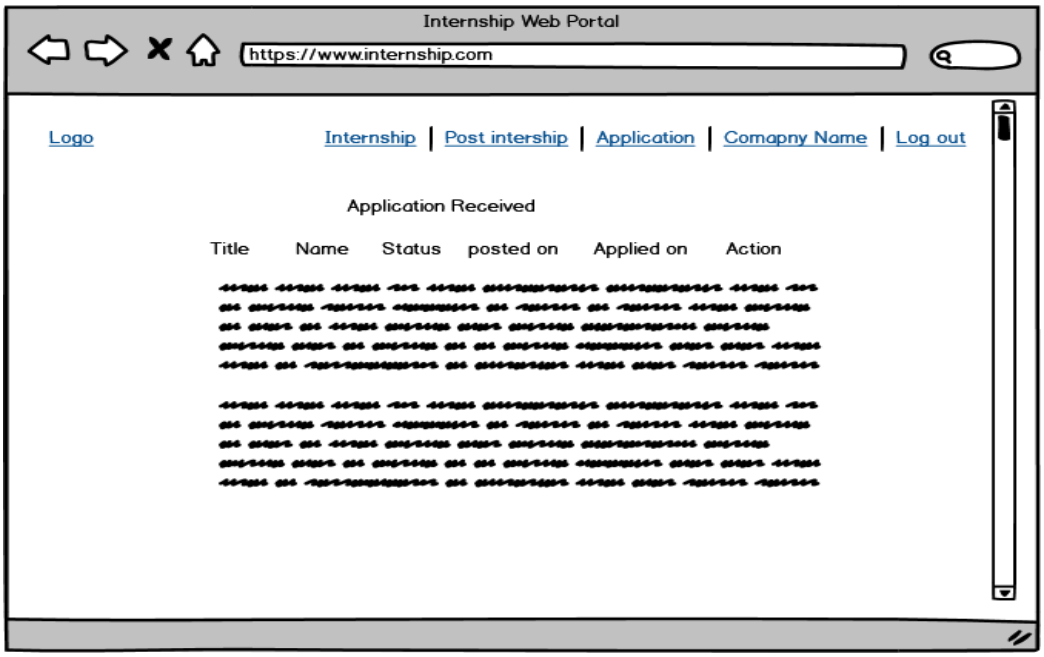


Figure 79: Company managing application wireframe.

4.Apply for internship

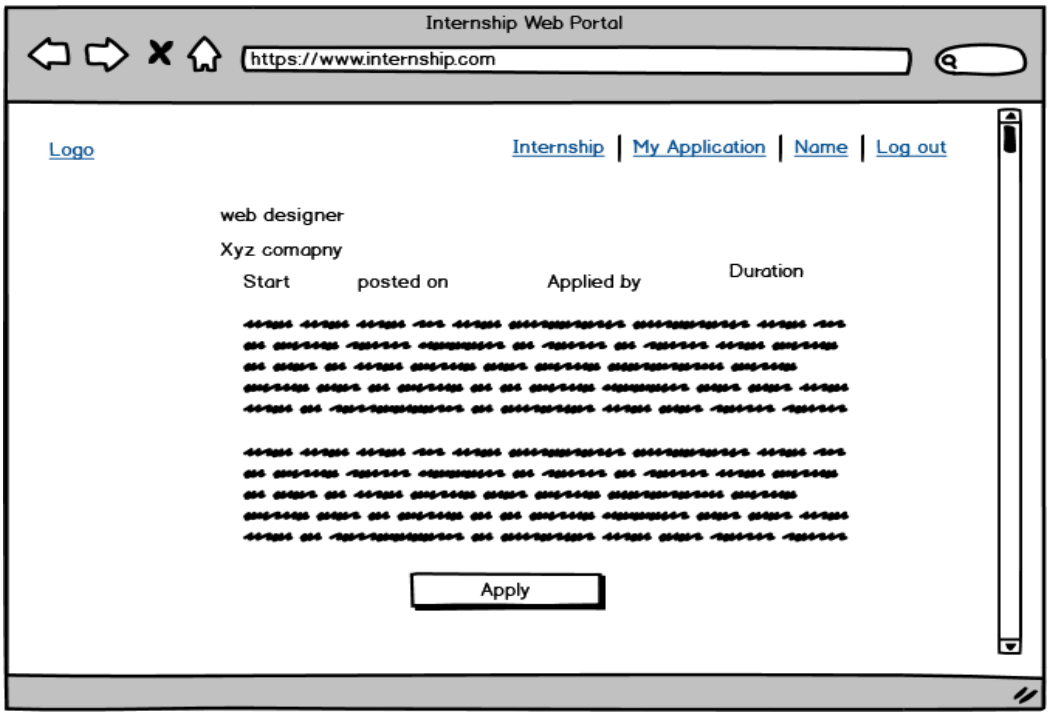


Figure 80:Students applying internship wireframe.

5. Landing Page

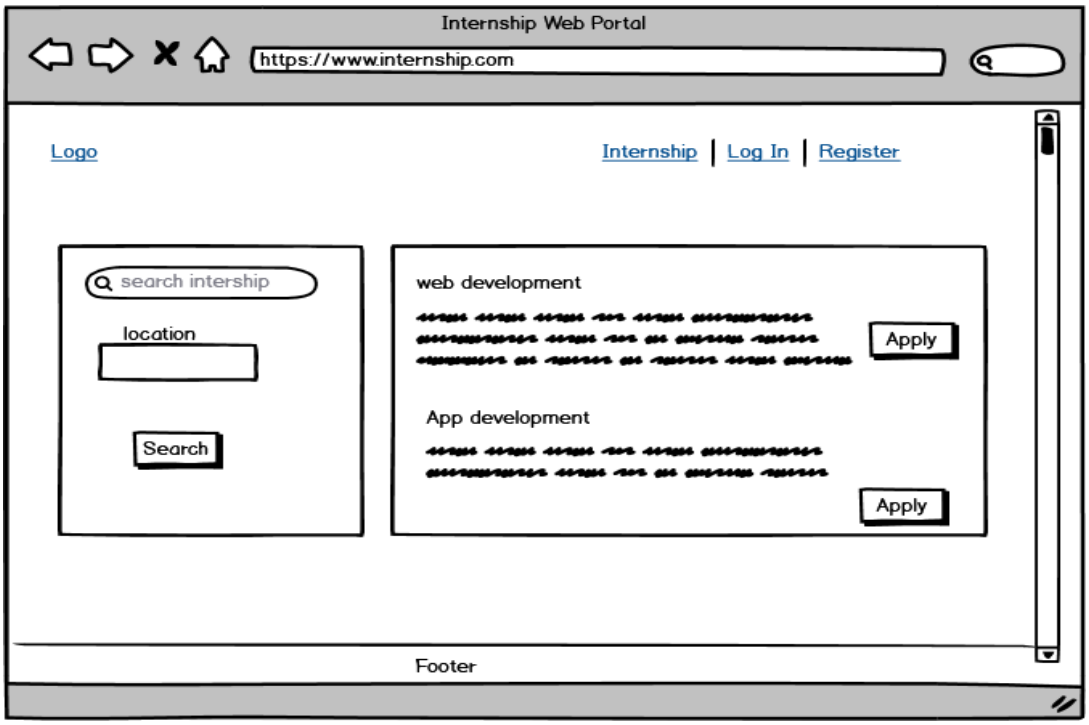


Figure 81:Landing page wireframe.

6.Posting internship vacancy

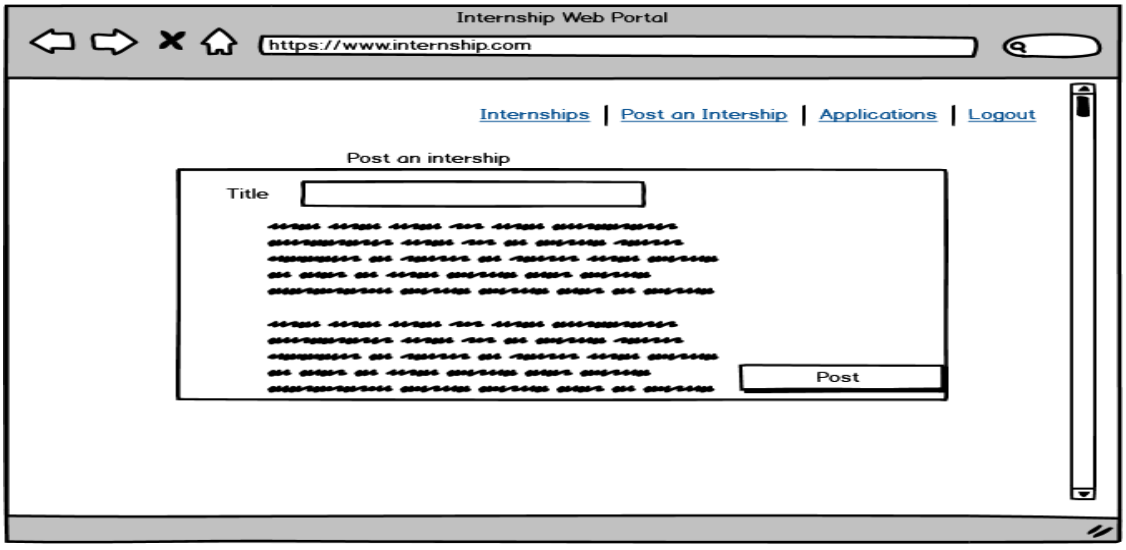


Figure 82: Company posting internship wireframe.

7.5 Appendix E: Screenshots of the system.

Index Page

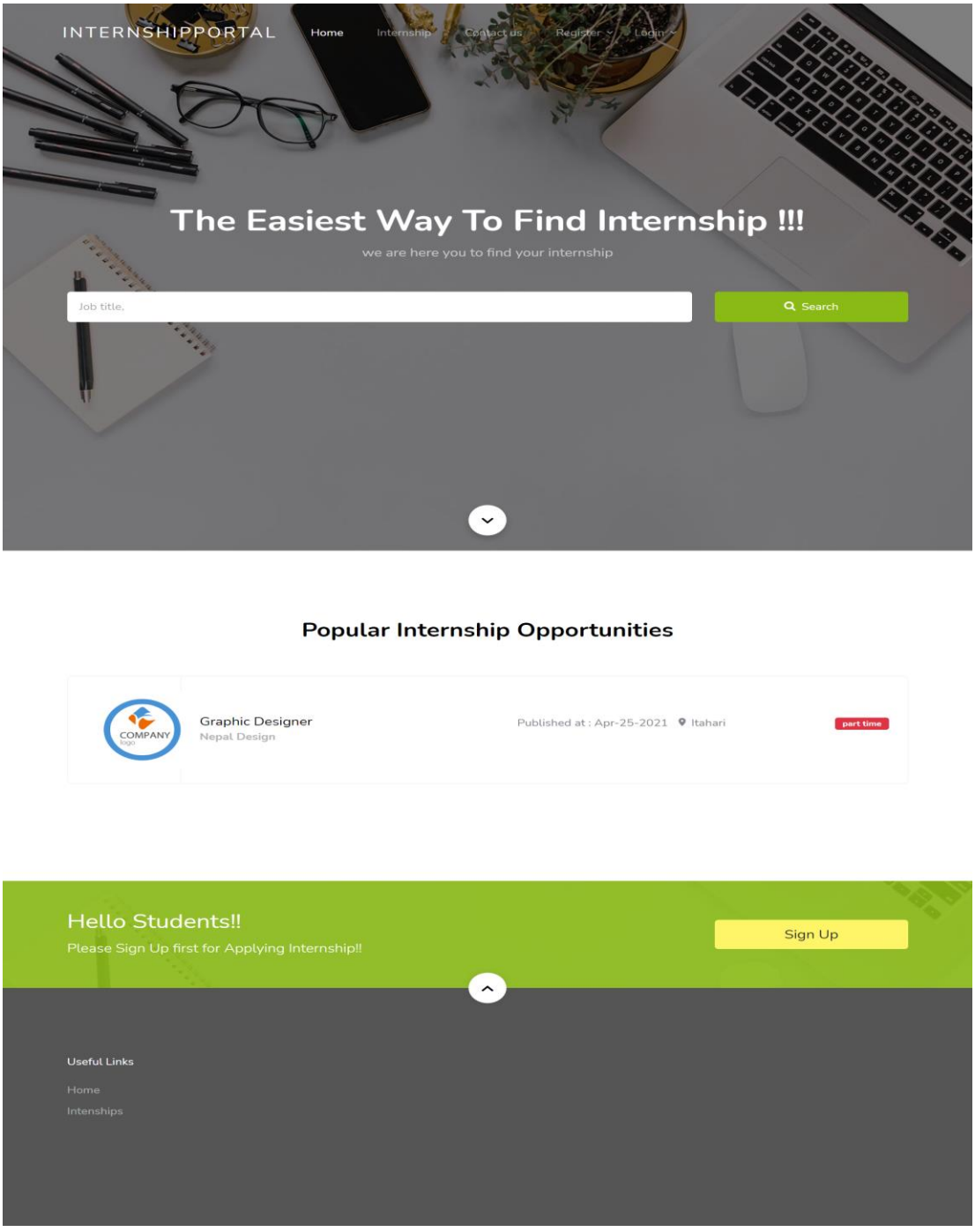


Figure 83: Index page of the system

Contact us page

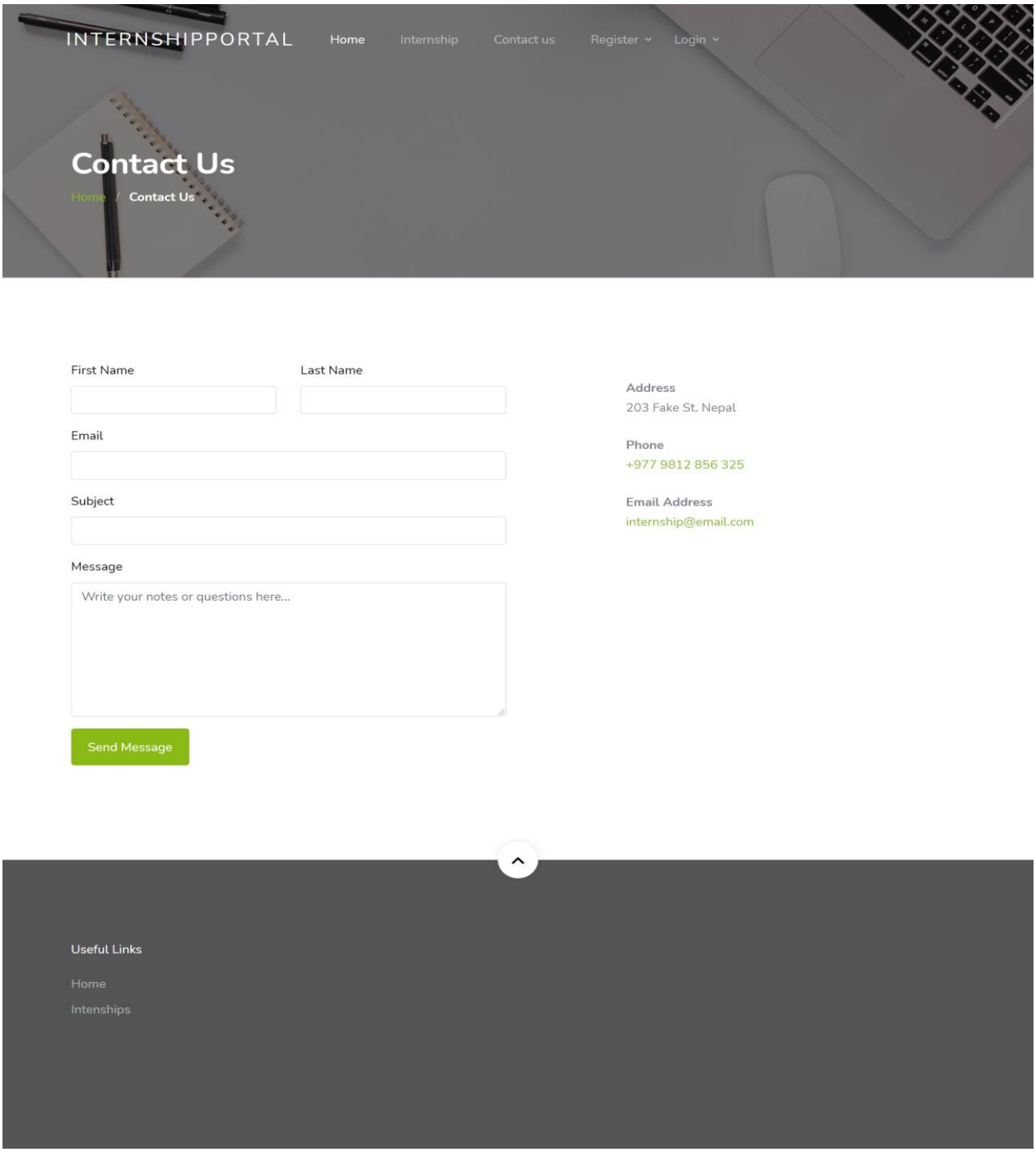


Figure 84: Contact Us page.

Internship Page

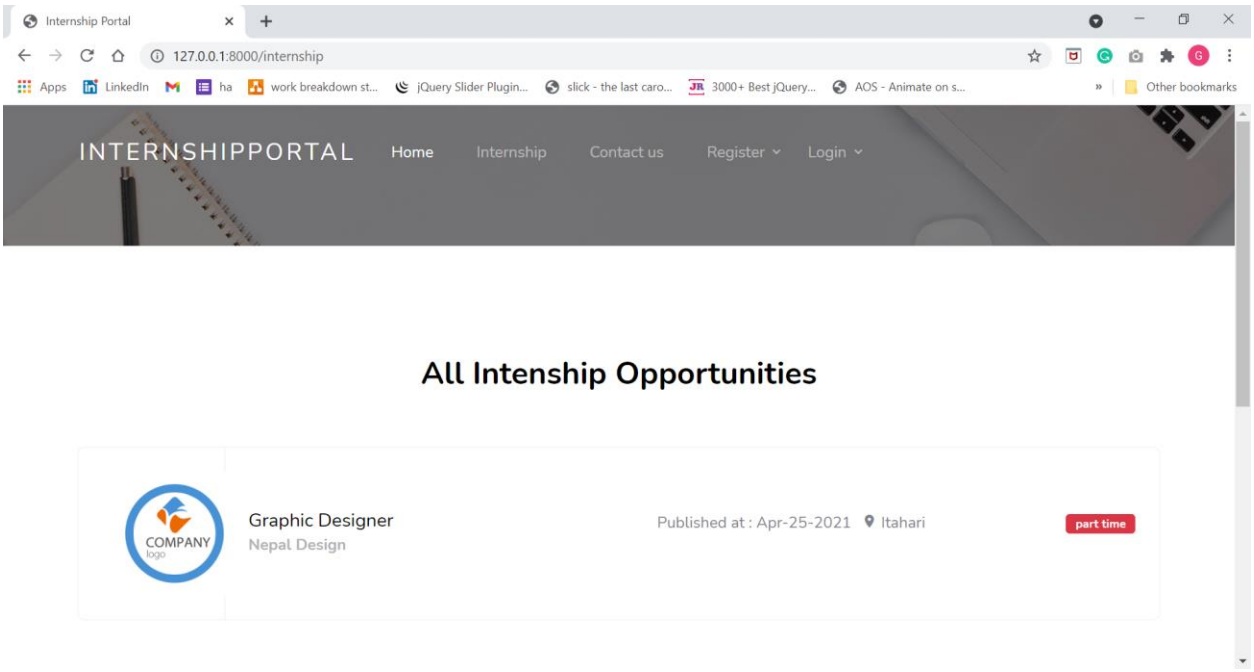


Figure 85: Internship Page.

Signup Page

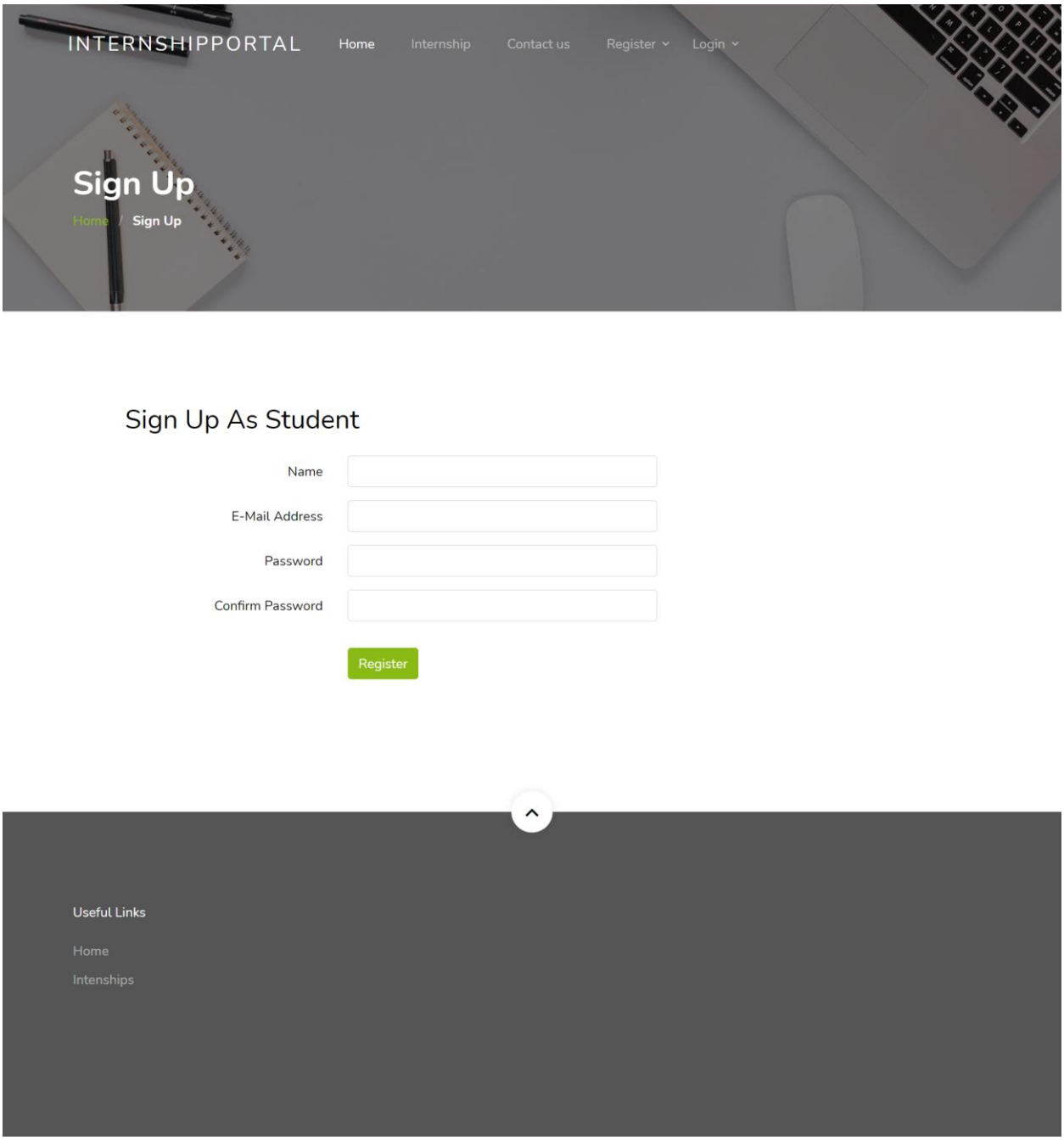


Figure 86: Signup page.

Login Page.

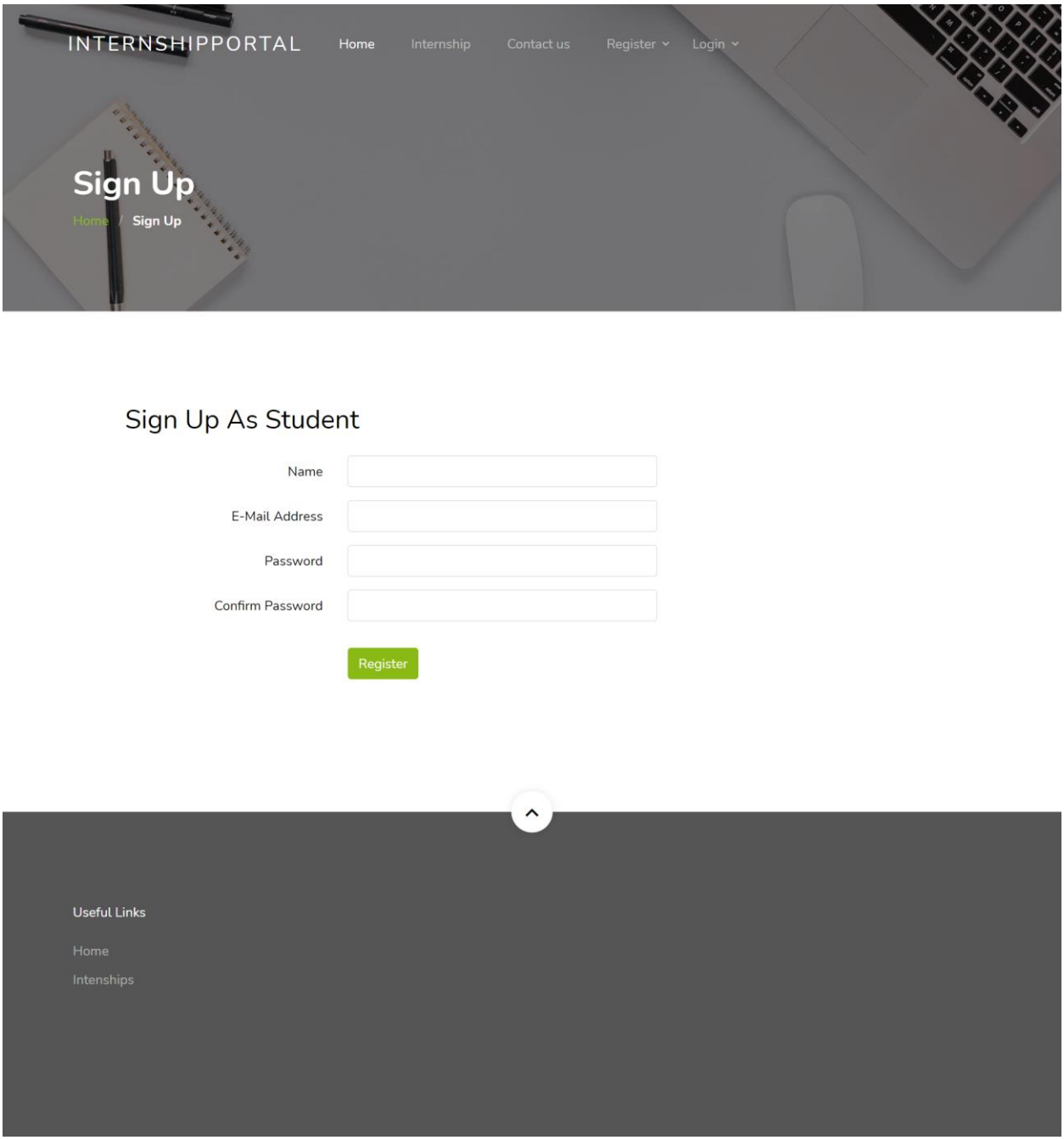


Figure 87: Login Page.

Company dashboard

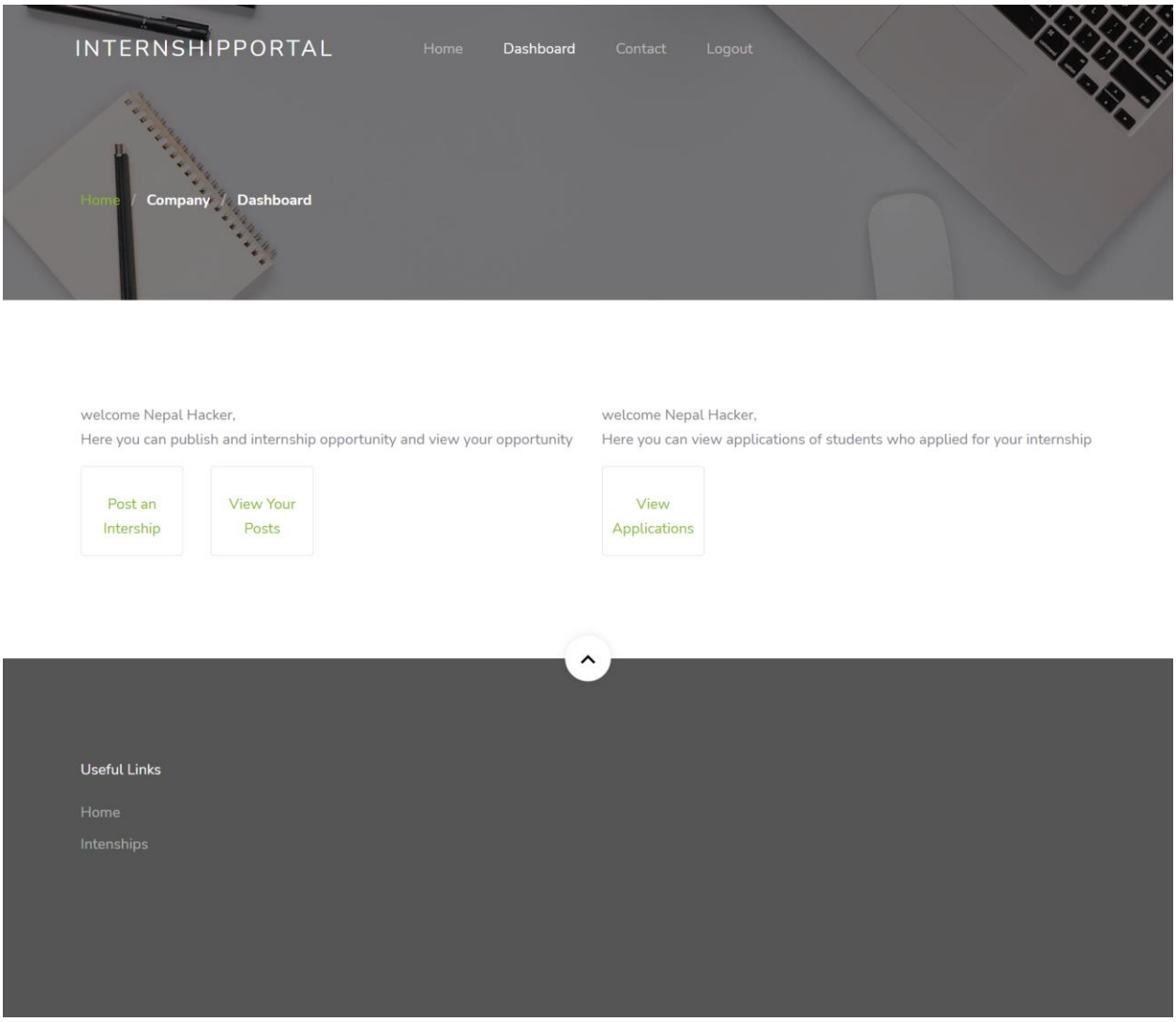


Figure 88: Company Dashboard.

Post Internship Page

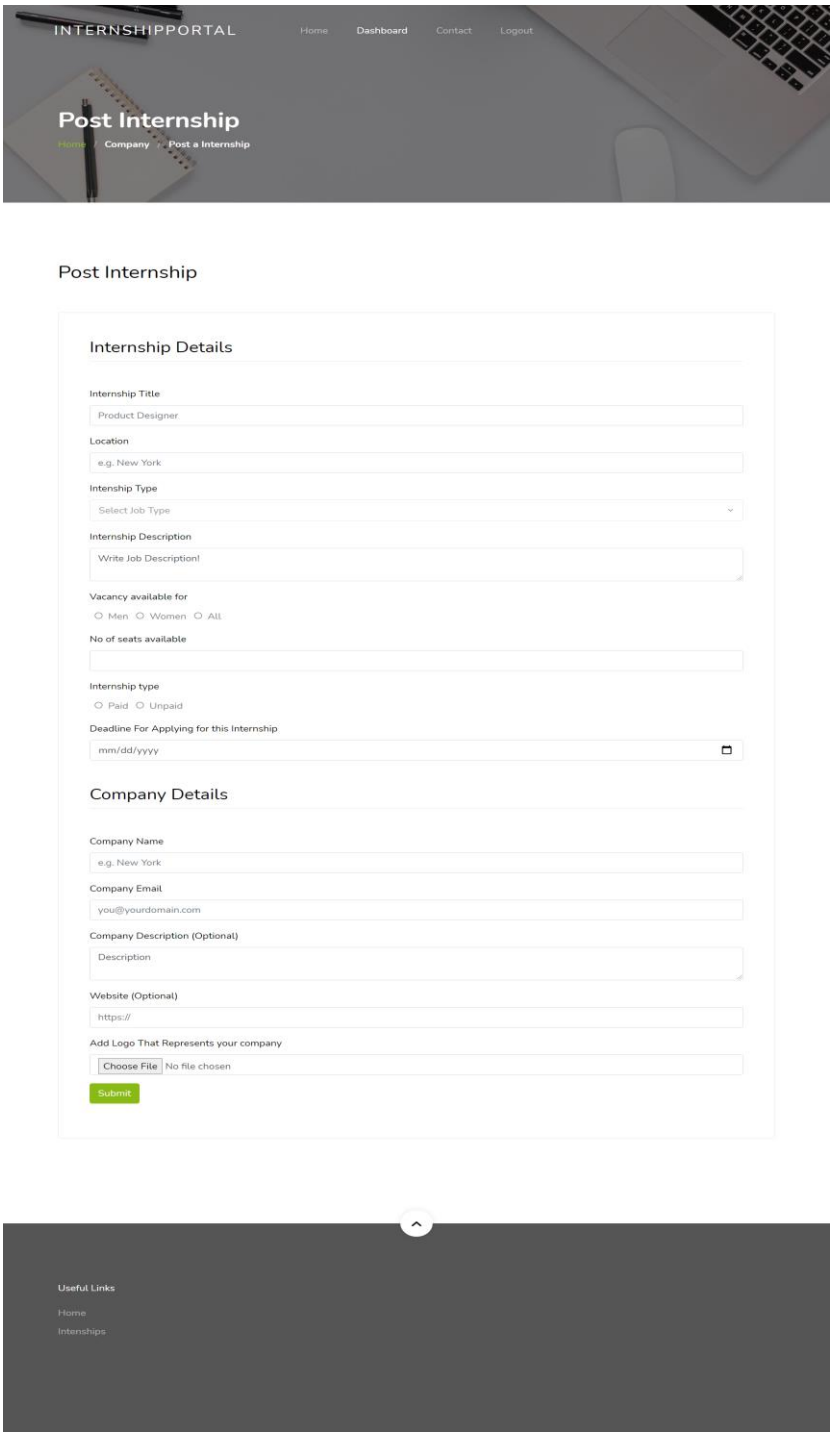


Figure 89: Post Internship Page.

7.6 Appendix F: Software requirement specification (SRS):

7.6.1 Introduction:

7.6.1.1 Purpose:

The aim of this document is to provide a comprehensive overview and software specifications for an internship web portal. It will clarify the functionality of the system and how it operates to better interact with end users.

7.6.1.2 Project scope:

This application is being developed to solve the problem which students had faced or might face while searching for an internship. This system will be designed to help the students in terms of finding intern vacancy. This system will allow companies to post their internship vacancies.

7.6.1.3 References:

IEEE STD 830-1998, IEEE Recommended Practice for Software Requirements Specifications IEEE Computer Society, 1998.

7.6.1.4 Intended clients:

This project is for all students who are willing to intern in company according to their studies or field of interest. This system would be helpful for finding different intern vacancies. Students will be recommended nearby vacancies as per their interest. This project has been decided after confirming the problems seen in surveys among different students.

7.6.2 Overall Description:

7.6.2.1 Product Prospective:

This web application operates with a server from which all the data about various companies' internship vacancies is collected and managed. All users were asked for their authentication and login information and provided the required profile interface. The logged in students can know available internship vaccines and can apply for internships in companies nearby them according to their choice. Companies can post and update their information about internships once they are verified by application.

7.6.3 Specific Requirements:

7.6.3.1 Interface Requirement:

In this system, there will be two interfaces, one defining the interaction of end users with the application and the other defining the interaction of the application and the server.

7.6.3.2 Functional Requirements:

The actual interaction with the users and device characteristics is explained in this section. The overall criteria for the respective actors to use them are listed below.

Register: In this case, the user enters his or her full name, email, password. When the user provides all the appropriate information in required fields, the user is successfully registered in the system and All the data is saved in the database.

Log in: User enters his/her username and corresponding password using which they have registered in the application and logs in the system.

Log out: The profile page contains the log out provision for the user to logged out of the system.

View and apply Internship: The logged in students can see the respective popular internship vacancy, can check the description of the companies, and can apply for an internship.

Post vacancies: The logged in companies can post internship vacancies and update their information.

7.6.4 Non-functional Requirements:

7.6.4.1 Performance Requirements:

In terms of user interface, user experience and efficiency, this section ensures the performance of a project. By decreasing the data loading time, increasing the serialization, and caching of data when uploading and fetching data from the server, the efficiency of the application can be improved. For users who access a website using an LTE mobile link, the front-page load time must be no more than 2 seconds. There should not be delays while switching from one page to another in the application. For better performance, application data should be stored in a properly normalized database.

7.6.4.2 Safety Requirements:

This includes requirements that relate to potential failure, harm or damage that may occur from the end-users after the use of the application. Overuse and retrieval of data can result in the crash of data on the server. To prevent such problems reliable sources should be used for backup of data. Both data and system should be backed up periodically.

7.6.4.3 Security Requirements:

This section contains provisions relating to security or privacy concerns relating to the use of the application or the protection of the data used or produced by the application. Various useful information of end users is stored in the server of the application which should not be misused or accessible by non-related people. The system needs to enforce some authentication for user registration to ensure protection.

7.6.5 Software System Attributes:

7.6.5.1 Availability:

- If the user has access to the Internet, the application should be accessible from anywhere and at any time.
- Data on the database side should not be lost even after any kind of application failure.

7.6.5.2 Accuracy:

- The information provided by the application about different internship vacancies should be accurate.
- The information of vacancy according to location should be properly shown and students provided information should be accurate.

7.6.5.3 Maintainability:

- As per their needs, end-users can maintain and edit their personal data within the application.

- The software design should be well documented, and the code should be easy to understand and commented well.
- The system should be easy to access, and features can be added easily.

7.6.5.4 Usability:

- This application should be usable and should solve the problem of students who are searching for internship.
- This project should develop with better user interface, user experience and when seeking internship placement, it solves different kinds of issues they need to face.

7.6.6 Resource Requirements:

This project needs different types of resources for its development. The resources are as follows:

Frontend: Html, CSS, JavaScript, Bootstrap

IDE: Visual Studio Code

Backend language: Php

Backend Software: Xampp (MySQL)

Framework: Laravel

Database: MySQL

Designing and Prototyping: Balsamiq Wireframes and draw.io

7.6.7 Conclusion:

The aim and design of the internship web portal to be built are emphasized in this document. This document lays out the overall criteria, including technological and business reviews. This paper demonstrates both what the program is intended to do and how it is meant to work. It can be defined as the application manual proposed by the project to estimate the overall outline before the project begins.