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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

This report is written based on a web application, ‘Internship Web Portal’. This project falls under the part of the interim report for the final year project. This document showcases the introduction, background, work progress, and further planning of the project. It represents the overall research done before the development of the project. It includes proof of reviews through various systems and projects similar to this application. The intended project pursues the approach of RUP methodology for reflecting each procedure of system development in sequential ways. It also includes software requirement specification that includes different software requirements, different functional and non-functional requirements, and feasibility of the application.

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1. Introduction

1.1 Introduction to the topic

This project proposes a web application which is about creating an “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.

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. 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.

1.2 Problem Scenario

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.

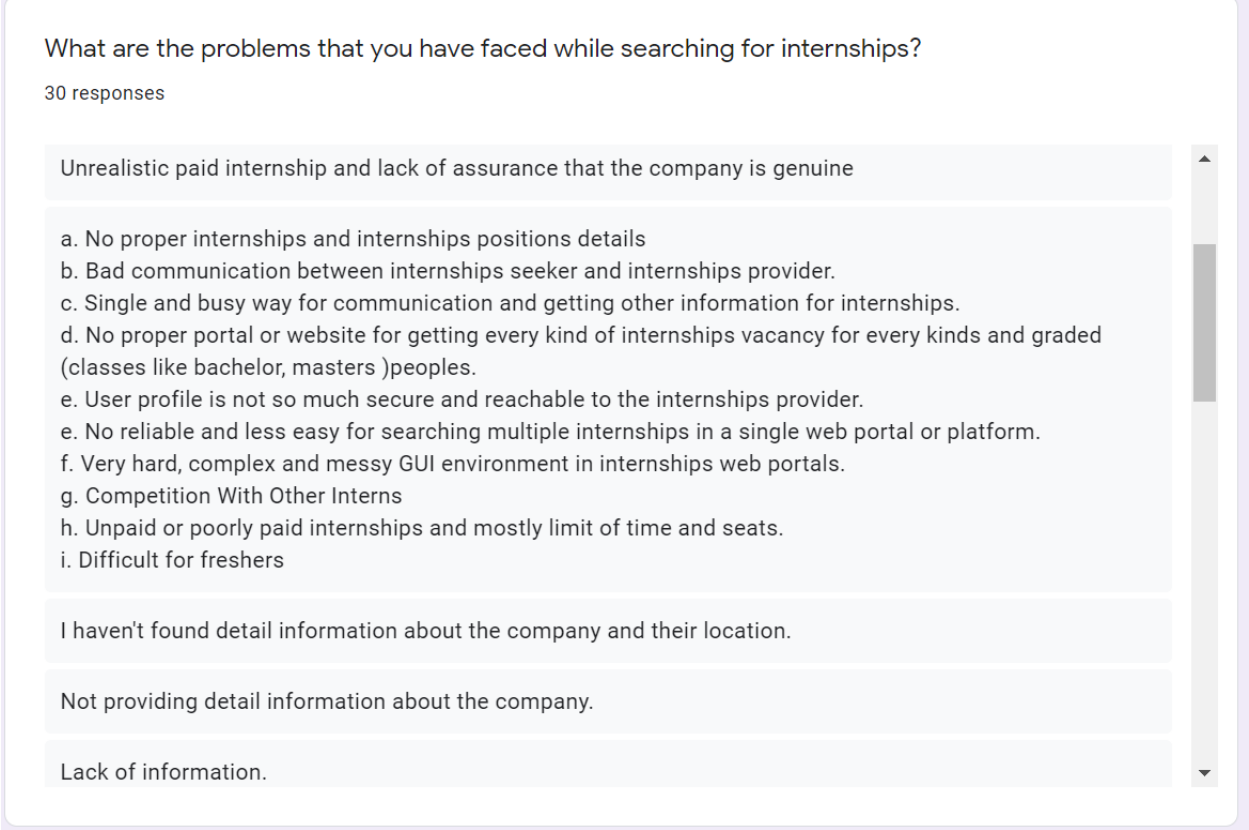


Figure 1: List of problems faced by students while searching for internships (Survey,2020)

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.

1.3 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.

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(cities).
- 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.

2. Background

2.1 Client/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 succeed 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.

2.3 Review of similar systems/apps/solutions

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).

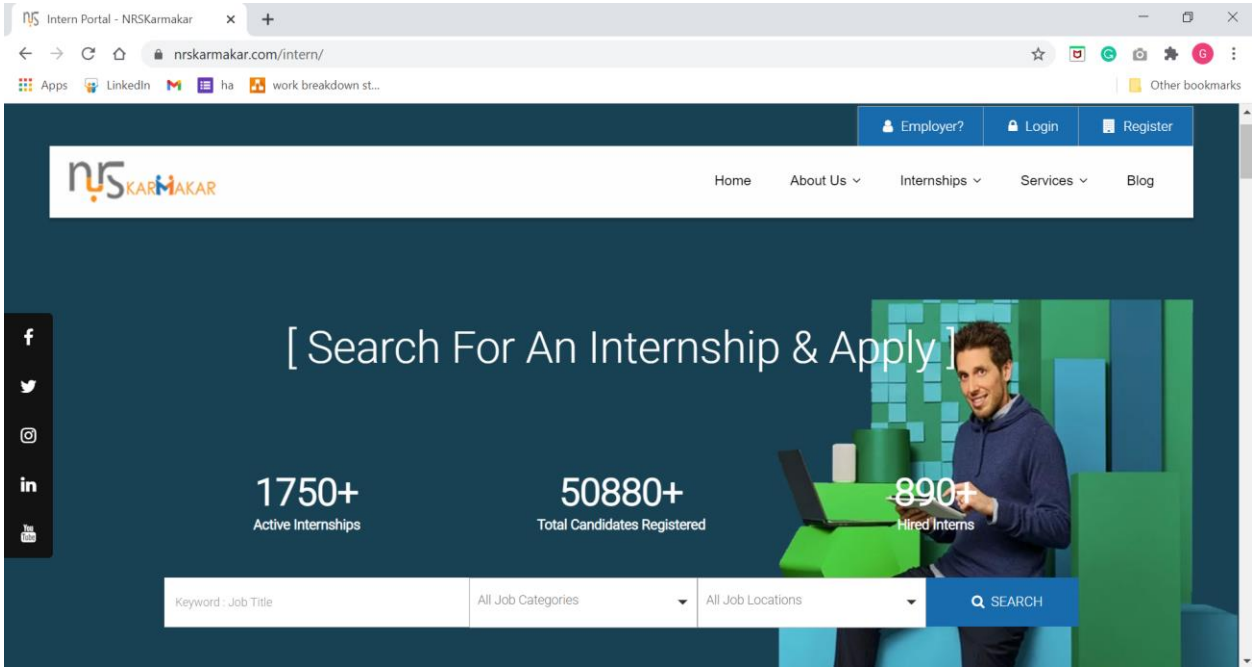


Figure 2: NRS Karmakar Web App.

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.

Analysis of similar projects

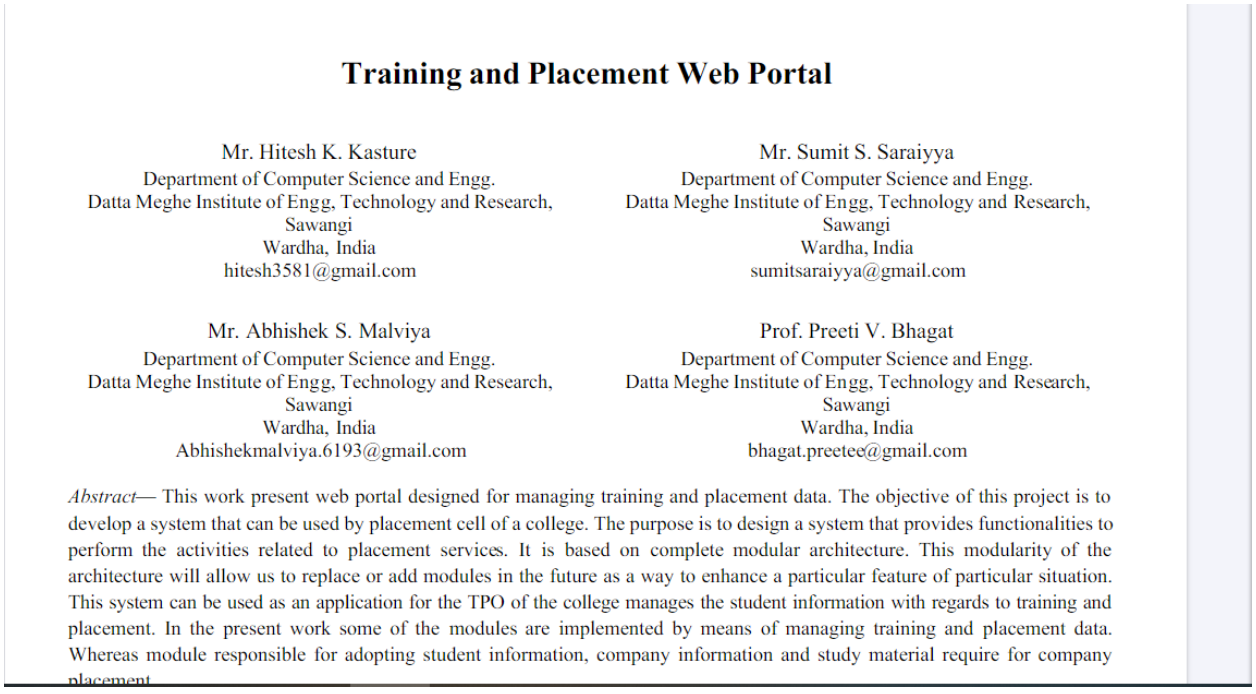
Name of similar application	**Positive Analysis**	**Negative analysis**	**Features taken or consider in my project**
1. NRS Karmakar	It provides an overall description of the companies and their vaccines.	It does not cover local areas and does not promote local companies.	Can be a good source of data 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 Review of similar projects

I have gathered some of the articles and research papers similar to the web-based internship application. Items helped me a lot in the selection of hardware and software specifications. I have acquired awareness of the implementation of various features of the application.

2.4.1 Training and Placement Web Portal

In this article, a training and placement web portal is developed. This article provides information about managing the student's information, companies' information, and other study materials required for an internship. This article helps me to develop a web portal which can manage all kinds of information related to the system. It also helps me to know about the tools and techniques required to develop a proper functional web portal. With the help of this article, I got knowledge about the importance of system data backup, security etc.



Training and Placement Web Portal

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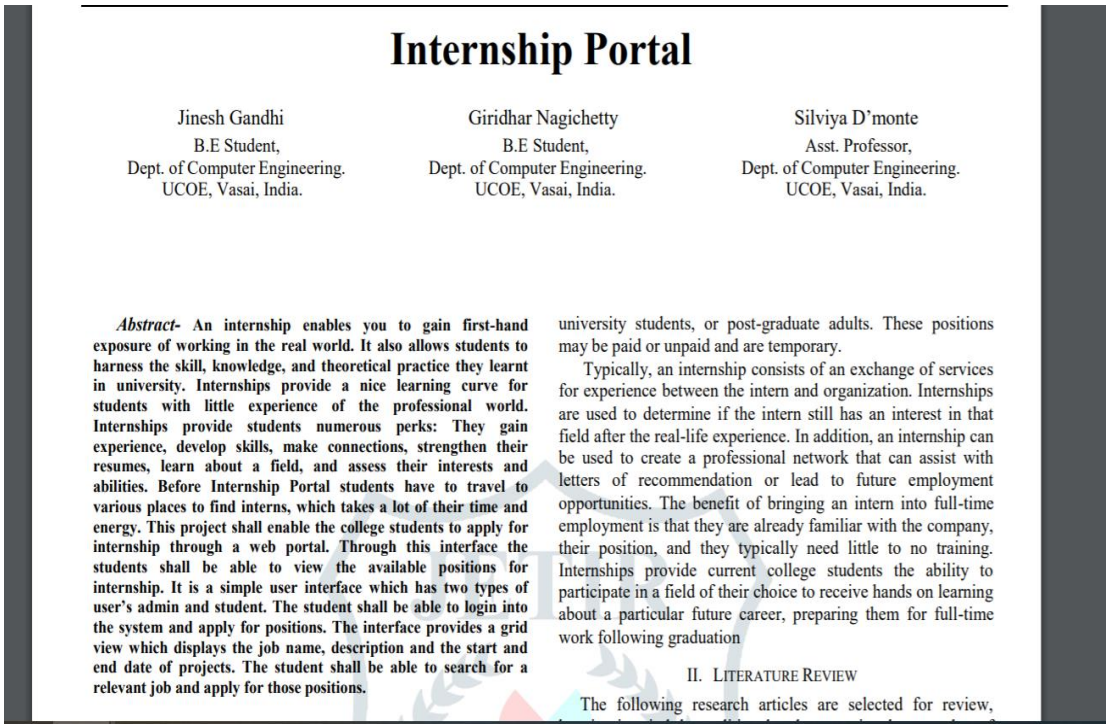
Abstract— This work present web portal designed for managing training and placement data. The objective of this project is to develop a system that can be used by placement cell of a college. The purpose is to design a system that provides functionalities to perform the activities related to placement services. It is based on complete modular architecture. This modularity of the architecture will allow us to replace or add modules in the future as a way to enhance a particular feature of particular situation. This system can be used as an application for the TPO of the college manages the student information with regards to training and placement. In the present work some of the modules are implemented by means of managing training and placement data. Whereas module responsible for adopting student information, company information and study material require for company placement.

Figure 3: Training and Placement Web Portal.

2.4.2 Internship Portal

In this project, a web portal has been developed for finding internships. This web application has features like a search filter according to location, easy to apply and view internship information and user-friendly interfaces. This report helps me to use search filter concepts, other design, and development concepts for my projects. This article influences the implementation the feature of nearby places recommendation to the users in my application.



Internship Portal

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***Abstract*- An internship enables you to gain first-hand exposure of working in the real world. It also allows students to harness the skill, knowledge, and theoretical practice they learnt in university. Internships provide a nice learning curve for students with little experience of the professional world. Internships provide students numerous perks: They gain experience, develop skills, make connections, strengthen their resumes, learn about a field, and assess their interests and abilities. Before Internship Portal students have to travel to various places to find interns, which takes a lot of their time and energy. This project shall enable the college students to apply for internship through a web portal. Through this interface the students shall be able to view the available positions for internship. It is a simple user interface which has two types of user's admin and student. The student shall be able to login into the system and apply for positions. The interface provides a grid view which displays the job name, description and the start and end date of projects. The student shall be able to search for a relevant job and apply for those positions.**

university students, or post-graduate adults. These positions may be paid or unpaid and are temporary.

Typically, an internship consists of an exchange of services for experience between the intern and organization. Internships are used to determine if the intern still has an interest in that field after the real-life experience. In addition, an internship can be used to create a professional network that can assist with letters of recommendation or lead to future employment opportunities. The benefit of bringing an intern into full-time employment is that they are already familiar with the company, their position, and they typically need little to no training. Internships provide current college students the ability to participate in a field of their choice to receive hands on learning about a particular future career, preparing them for full-time work following graduation

II. LITERATURE REVIEW

The following research articles are selected for review,

Figure 4: Internship Portal.

2.4.3 Making an Internship Management System More Usable

This project is done to find out the problem of students while searching for an internship. This project is about making an internship management system more usable by solving the problems faced by students while using a management system, make the system more user friendly and adding new features for easy use of the system. This article helped me a lot for choosing design for my projects and how to make a system more attractive and user friendly. This article offers information on a different tool from which companies and students data can be managed, collected or shown properly.

Making an Internship Management System More Usable
A Usability Study for an Internship Management System
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Abstract

Praktikplatsen.se is an internship management system that is used by schools, businesses and Göteborgsregionens Kommunalförbund (GR) to provide and manage internships for students of all ages. The team who handles the tool, has a support section in the system which is frequently used by many of the users. They want to reduce the amount of support errands, which is why they have requested an analysis of the system to find usability problem and design suggestions on how to improve it.

With the problem in mind, this study aims to make *Praktikplatsen.se* more usable for school administrators who experienced the most usability problems of all the users. The thesis proposes a list of problems that have been found and solutions to the them which are presented in the form of guidelines and a high-fidelity prototype shown as screenshots in this report. In order to accomplish this, the project was divided into two phases, one research and analysis part to identify the usability problems, and one design and evaluation part to develop a good solution to the problems. The first phase consisted of user research methods and data analysis to collect data. The data was then evaluated with the KJ method and experience mapping to get a list of critical usability problems. Further, the results from the first phase was used in the next phase to design solutions. The design was first made in the form of a low-fidelity prototype which was evaluated with usability testing and then re-designed into a high-fidelity prototype. Evaluation methods were used after each design step to refine and finalize the prototypes. This resulted in a design that is very close in "look and feel" as the end product.

Figure 5: Making an Internship Management System More Usable

2.5 Review of 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.

2.5.1 Programming Language

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.

2.5.2 IDE

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.

3. Development

3.1 Approach/Methodology Considerations

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).

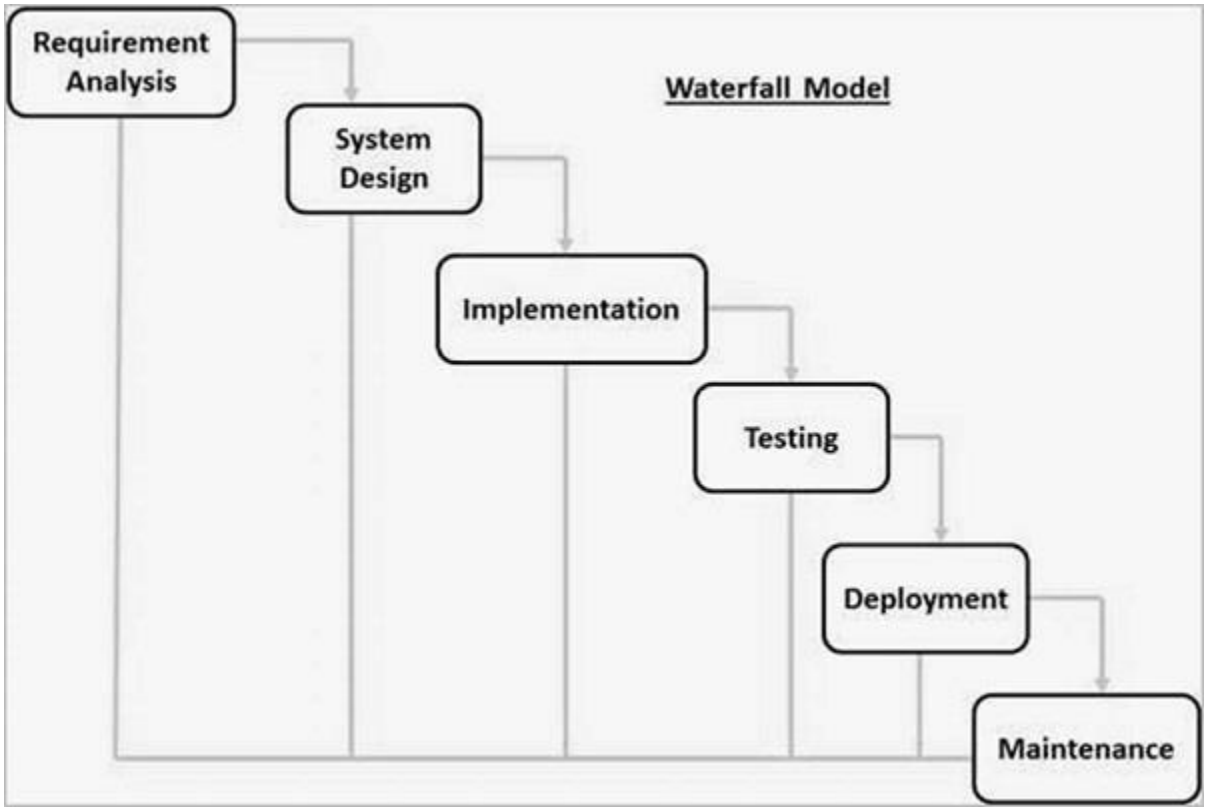

Figure 6: Waterfall model.

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).

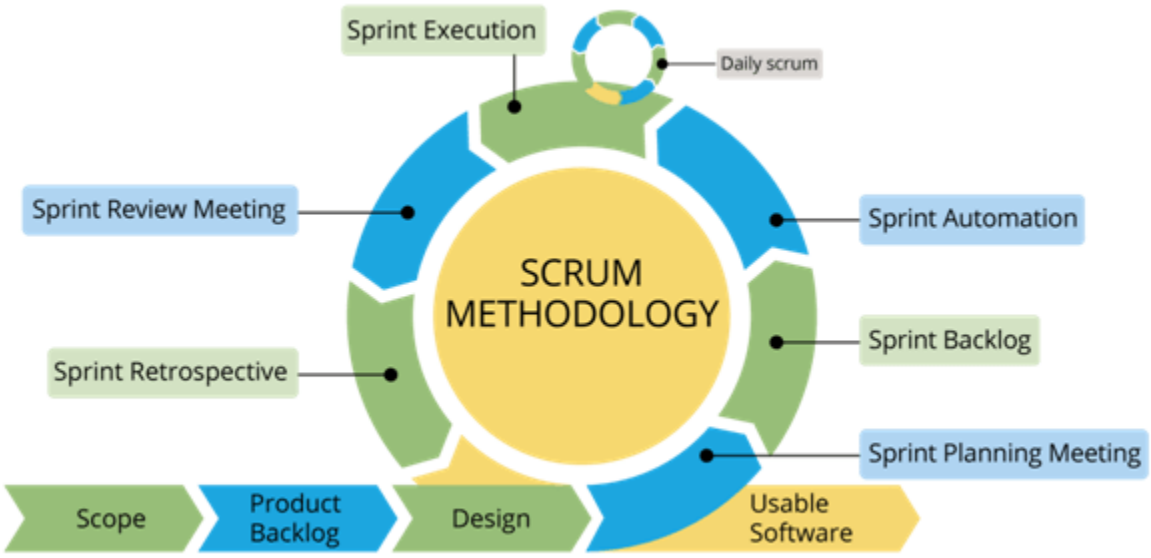

Figure 7: Scrum Methodology.

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).

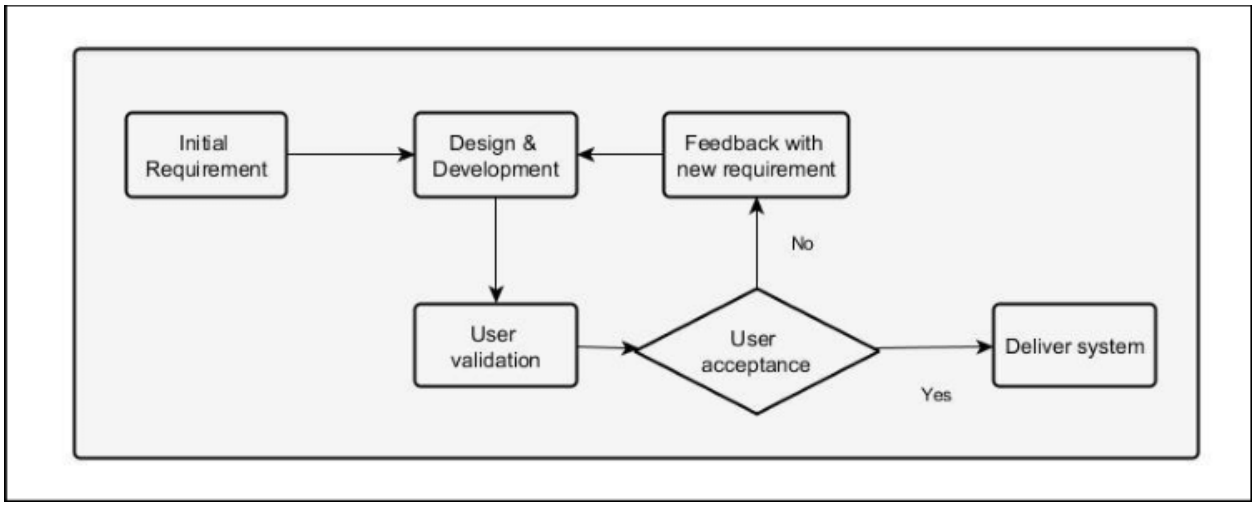

Figure 8.Evolutionary Prototype Model.

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 Stages of the chosen Approach/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).

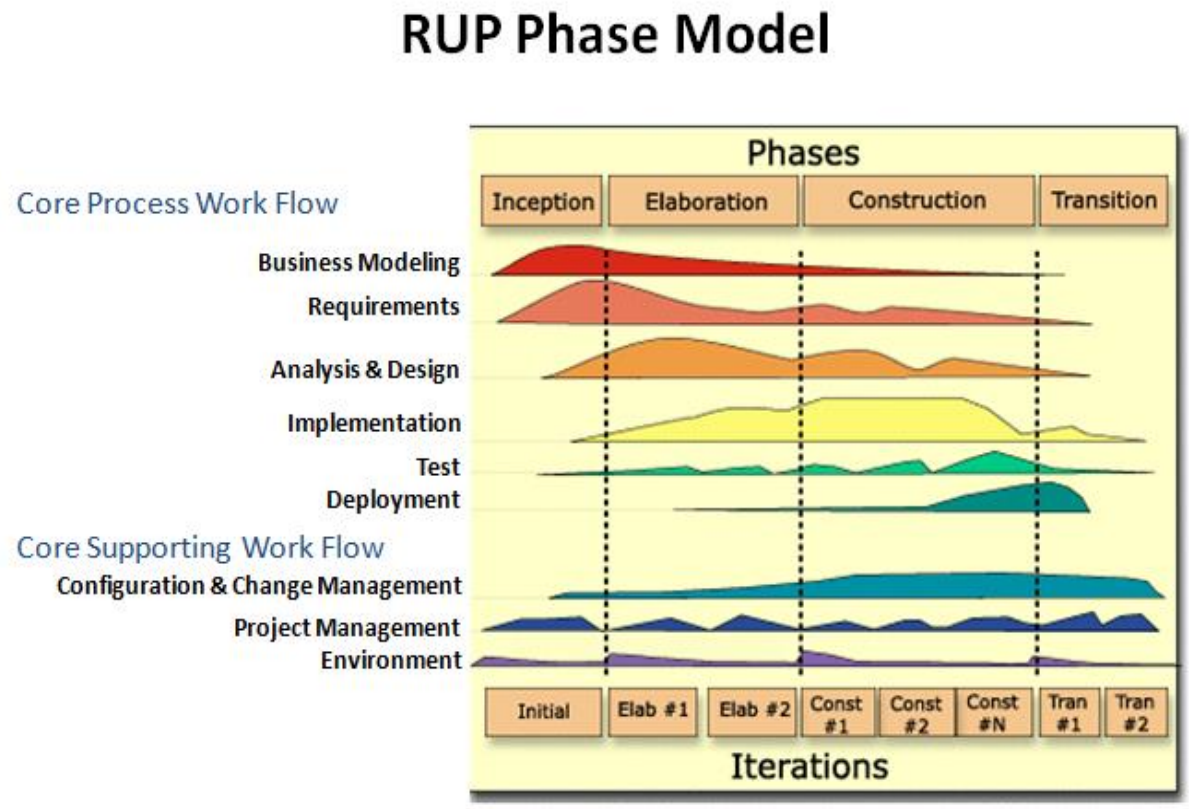

Figure 9:RUP Model.

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:

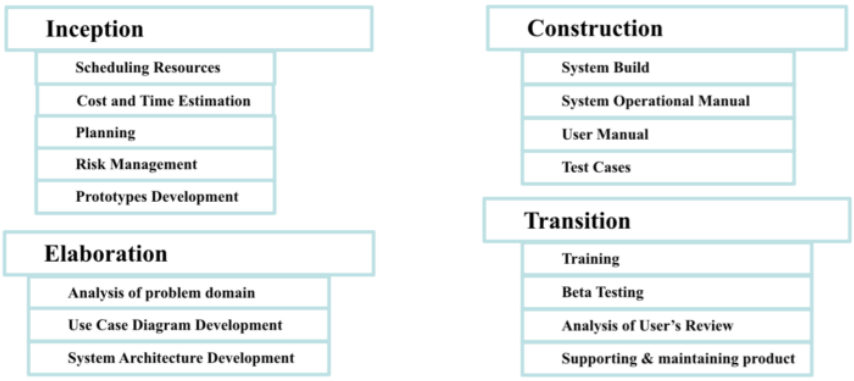

Figure 10: Phases of RUP Model.

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 RUP

3.3.1 Inception

In this phase, I would perform tasks such as information gathering, feasibility study, planning, scheduling resources, proper technical analysis for eliminating risk factors, and estimation of budget and time for the development of the entire project.

3.3.2 Elaboration

In this phase I would perform tasks such as Analysis of problem domain, Use Case Diagram Development and System Architecture Development. I will do research to evaluate the system specifications and design, create the project plan, and try to remove the project's highest risk elements by preparing the diagrammatic solution of problems like UML, DFD and Block diagram with documentation.

3.3.3 Construction

In this phase, I will perform tasks such as system build, system operational manual, user manual, test cases. I would develop all components and features and integrate them into the system. I would build a working system with proper design, function, and perform tests successfully. After the completion of coding, I would test every component to ensure the quality of the project.

3.3.4 Transition

This is the last phase of development where I perform tasks like beta testing, analysis of user reviews, supporting and maintaining product. The final version of the application will be deployed to the end-users with proper user manuals and documentation. Finally, I would love to hear suggestions and feedback from the customer about the product.

4. Progress

The completed stages of methodology in the early time boxing of the project are described below.

4.1 Inception Phase

I have done research and surveys among different people to understand the problems while finding internships and to know the adequate need of the system in a real time environment. I have collected different similar projects reports, articles and other sources that I have listed above to learn more about the requirements for developing this project. I had done proper technical analysis and prepared a Gantt chart for time estimation needed for the development of the project.

4.2 Elaboration Phase:

In this phase I have done research to evaluate the system specifications and design, create the project plan, and try to remove the project's highest risk elements by preparing the diagrammatic solution of problems like UML, DFD and Block diagram with documentation. I have prepared the documentation including hardware and software requirements for the project. The project’s architecture and required resources are further evaluated. I did research over different considerable prototypes for different functional features of the application to meet the requirements.

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).

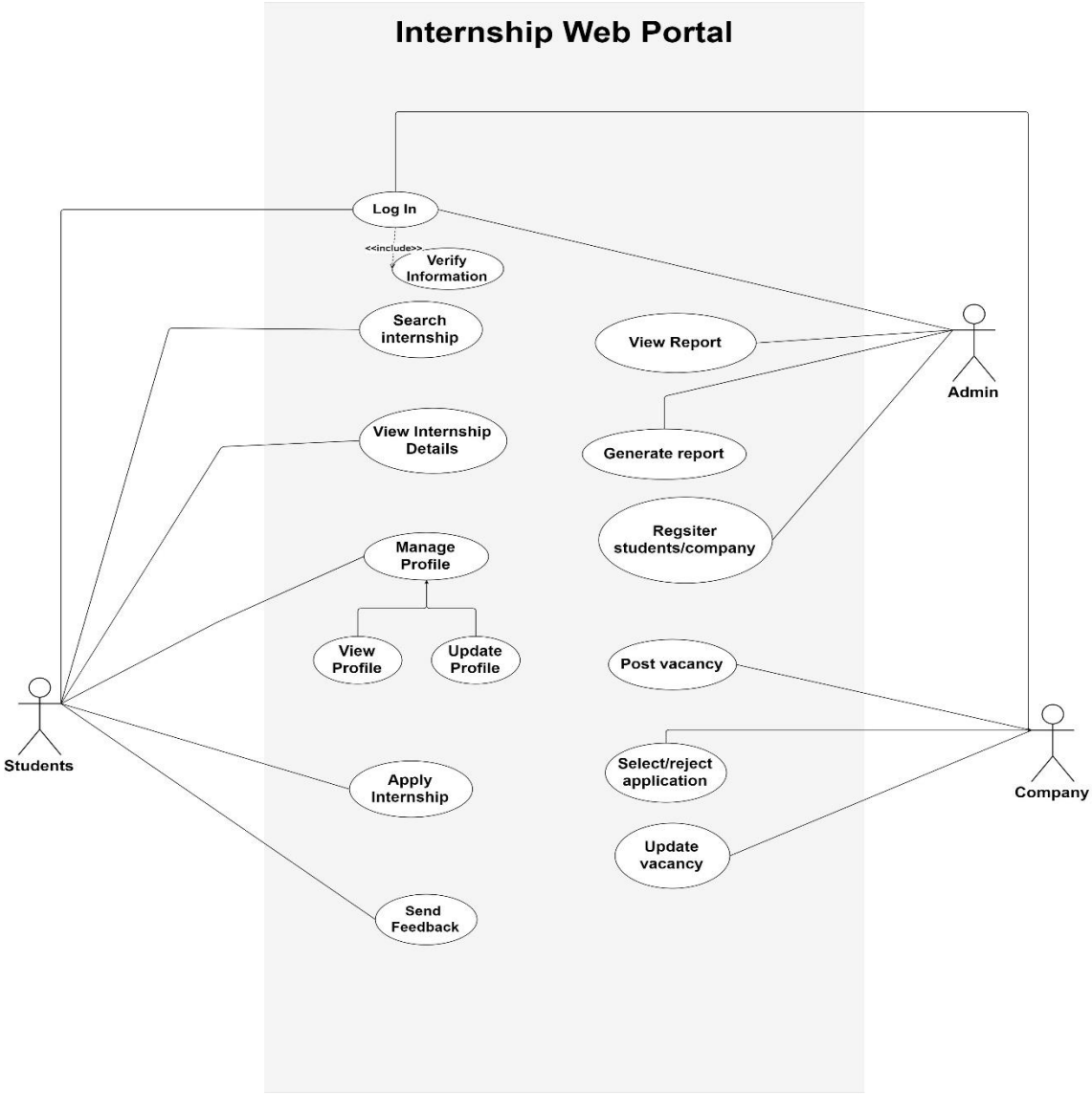

Figure 11: Use Case Diagram.

4.3 Analysis of work

In comparison to the time allocation and Gant chart in the proposal, the project is slightly lagging. I have completed most of the major tasks related to the requirement collection and other overall design of the system along with features. For me, Laravel was a completely new coding world. So, it has been hard to understand something entirely new. The only challenge I have faced in the past and now is mastering the modern language of programming. Due to my internship and college course works, I am lagging behind the development tasks of the projects. But I will surely catch up on these things in the upcoming days. As of now, I have completed the inception and elaboration phases which will help me to finish the construction phases on time. I would now confirm the work process and time to spend on the development of different features as indicated. I would also invest more time and effort into my work so that I can complete the project on time.

5. Further Work

The remaining tasks which are in progress will be completed in the provided time frame. According to the stages of the methodology, inception phase and elaboration phase has been completed and works are on-going on construction phase. The remaining phases are as follows:

5.1 Construction Phase

This phase is about to begin, all the needed requirements are done. At this phase I am finally ready to develop all components and features and integrate them into the system. As this is a manufacturing process where I focus on managing resources to optimize costs, schedules, and quality. The web application will be designed, written, and tested successfully. In this phase, I will perform tasks such as system build, system operational manual, user manual, test cases. In this way, I had planned to complete the development of the whole project in this phase.

5.2 Transition Phase

I had not reached this phase of the development cycle yet. This phase includes major tasks like beta testing, analysis of users reviews and supporting and maintaining products. I would then prepare the final developer documentation and user manuals and guides to use the application after the sequence of analysis and beta testing. The final refined product of the internship web portal application will then get deployed to the end users and the quality of the final product will be analyzed. Lastly, I would appreciate positive feedback and reviews from the user about the product. Hence, with proper planning and execution regarding different increments in various time boxing, I will accomplish my project on time.

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7. Appendix

7.1 Survey

Other relevant questionnaires which have been asked in the survey with their respective answers are given below:

1. To know how students search for internships?

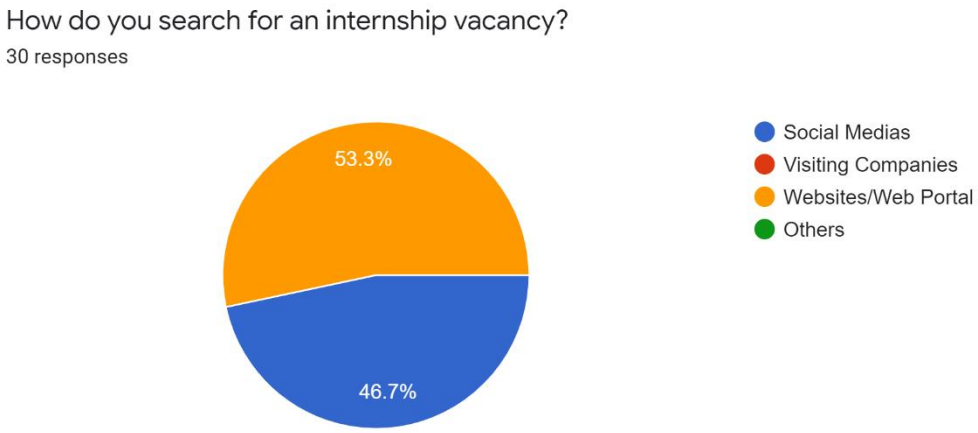


Figure 12: Survey question 1.

2. To find out data of students who have used an online system before?

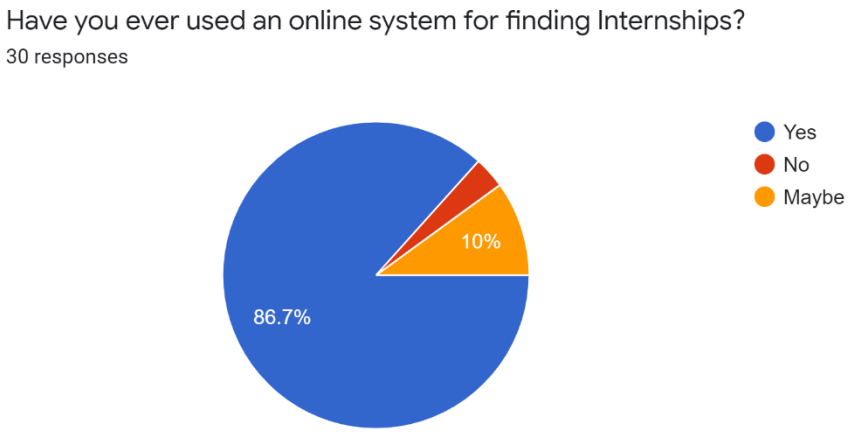


Figure 13: Survey question 2.

3. To know how students prefer to search for internships?

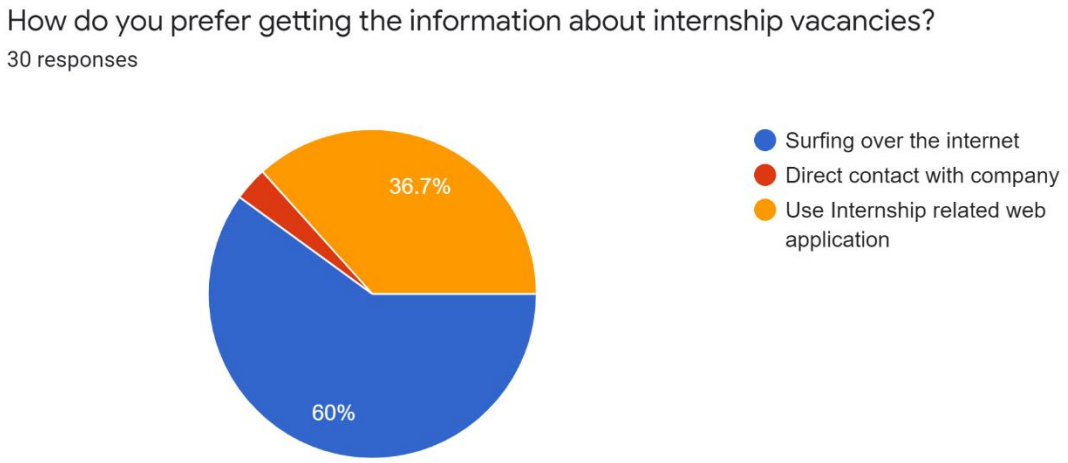


Figure 14: Survey question 3.

4. To know if students will prefer searching internships through web portal or not?

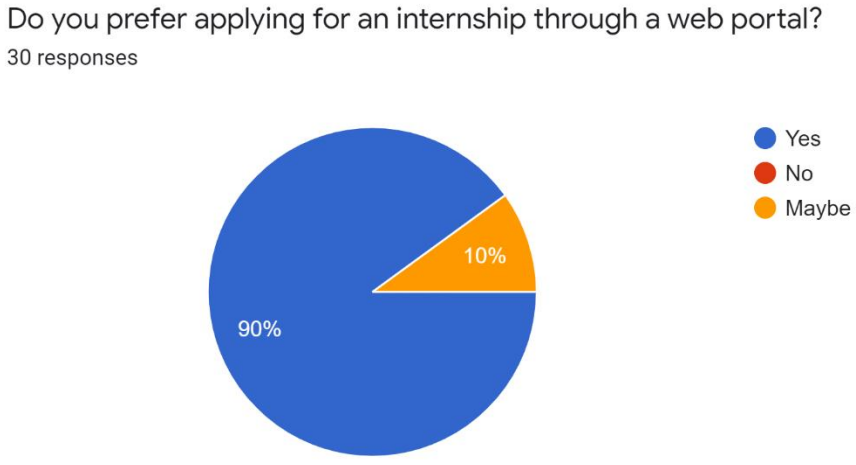


Figure 15: Survey question 4.

5. To understand the proposed system will be useful or not?

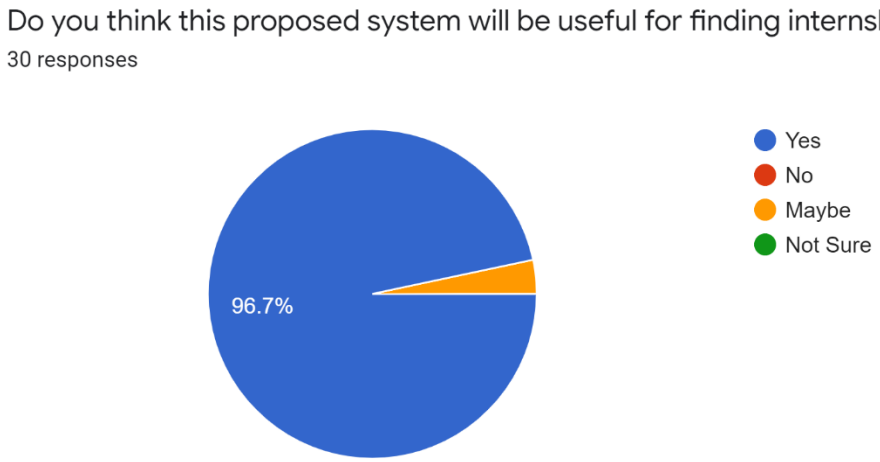


Figure 16: Survey question 5.

6. To find out the performance of existing applications or websites?

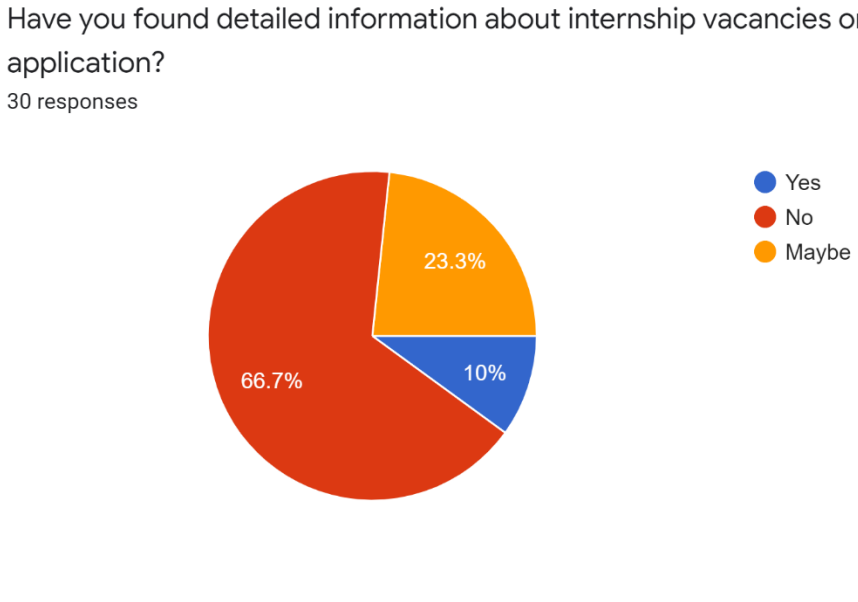


Figure 17: Survey question 6.

7. For understanding the problems that students face while searching for an internship?

Figure 18: Survey question 7.

8. Users feedback for improving web application and features?

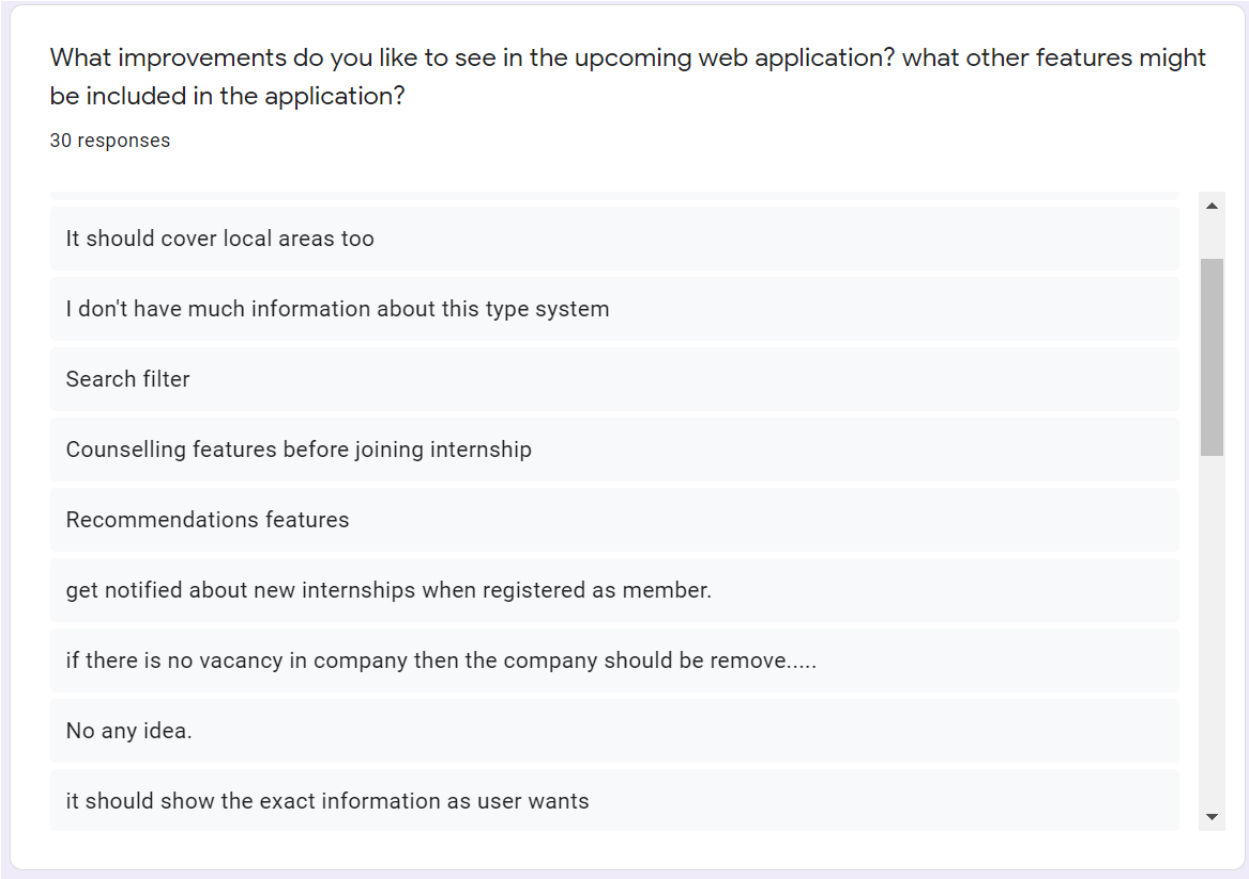


Figure 19: Survey question 8.

9. For knowing similar systems and their positive aspects?

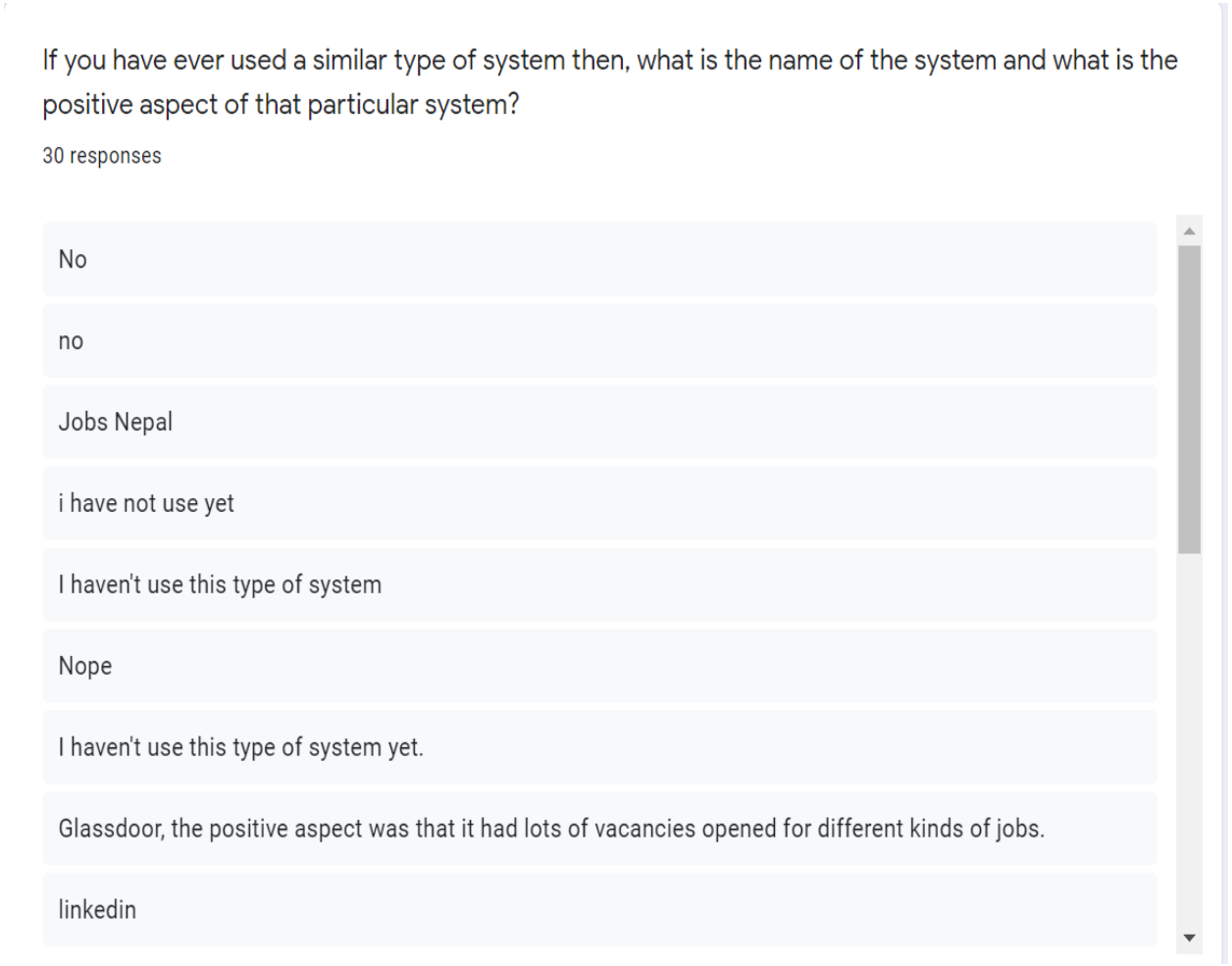


Figure 20: Survey question 9.

10. Users Feedbacks

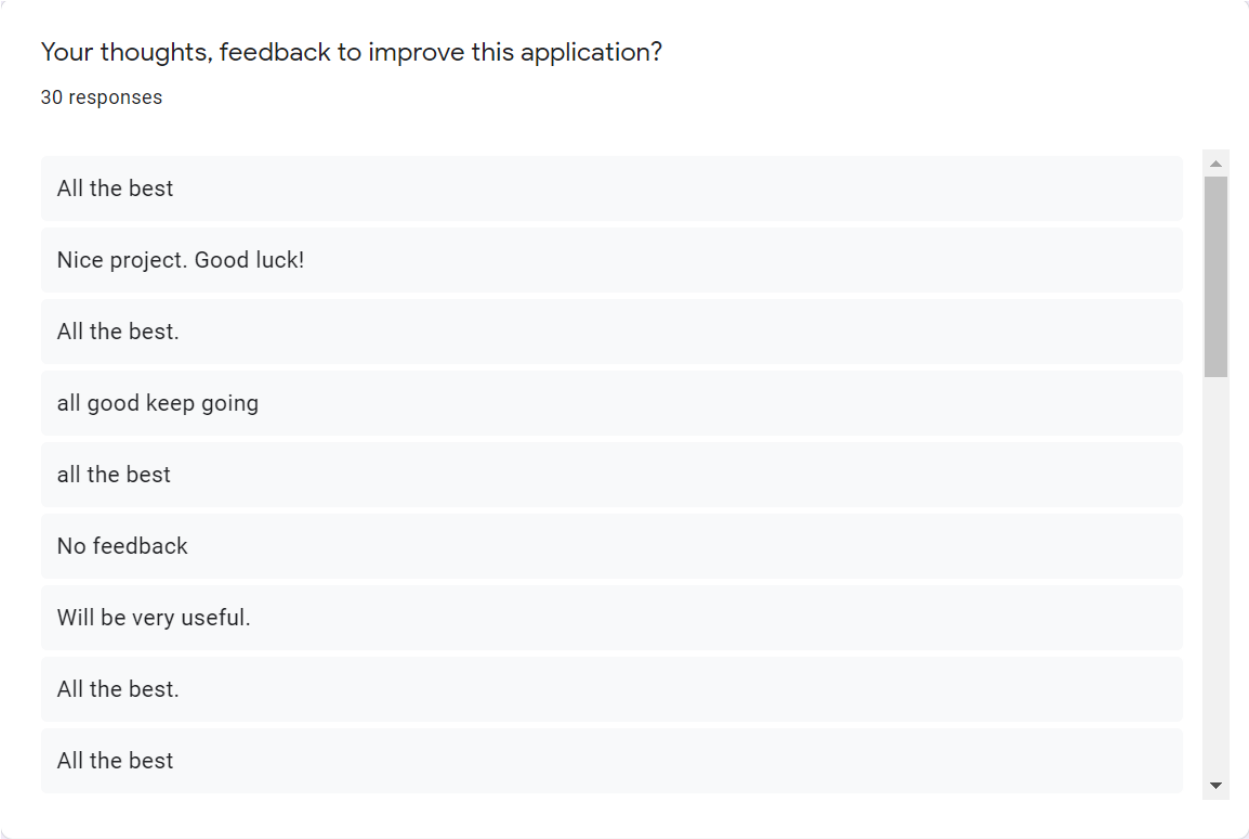


Figure 21: Survey question 10.

7.2 Work Breakdown Structure

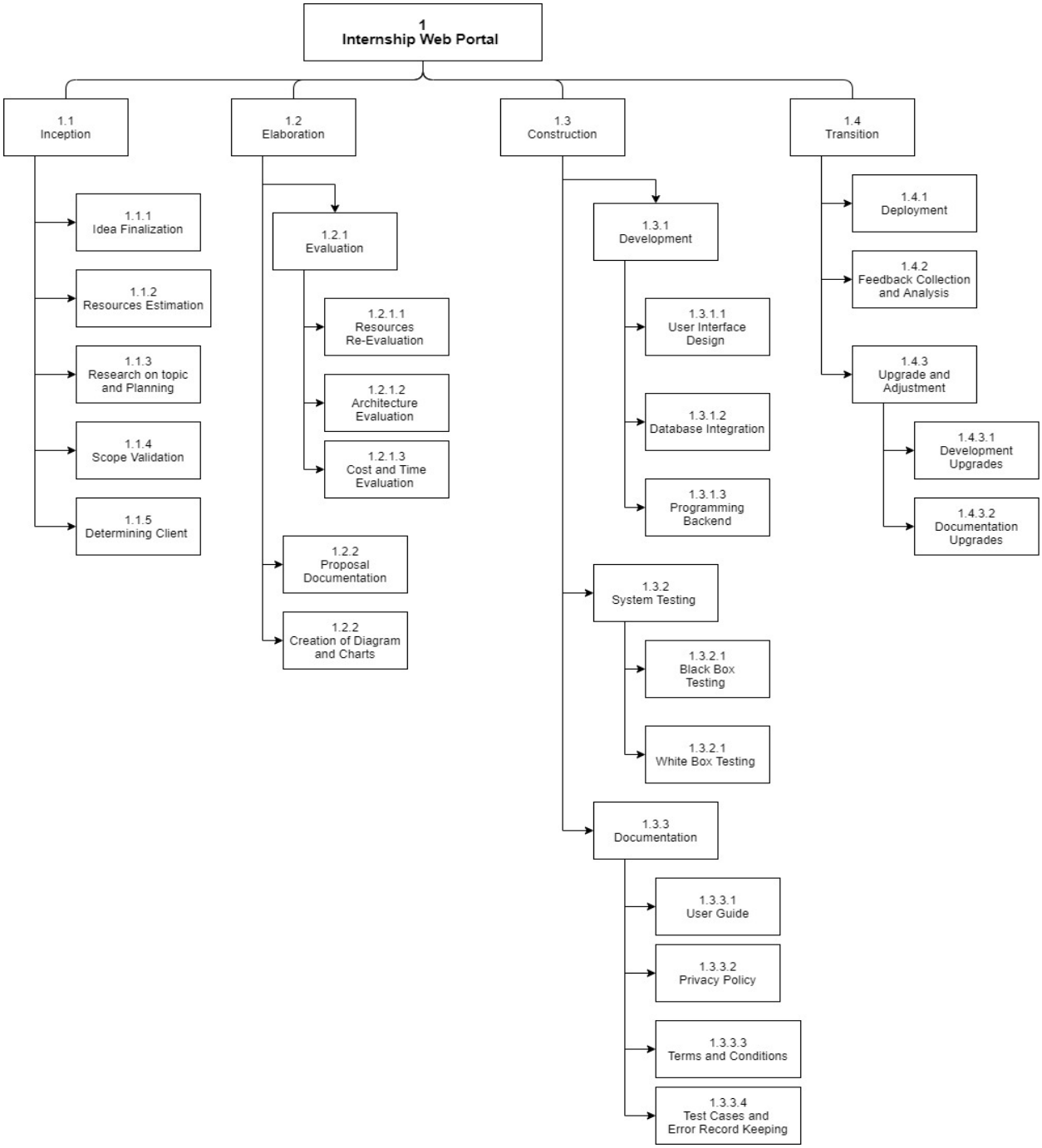
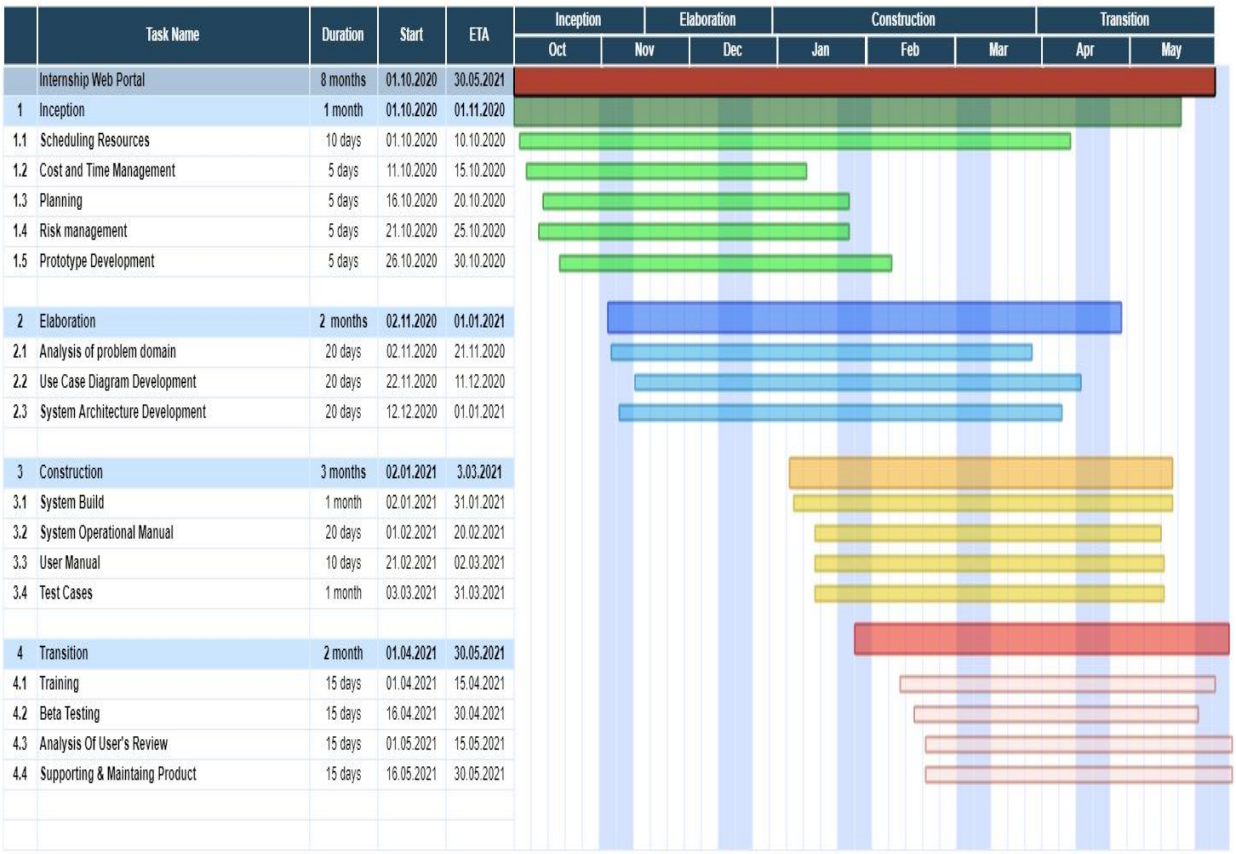


Figure 22: Work Breakdown Structure.

7.3 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 23:Gantt Chart.

7.4 Wireframes

1. Student login and register wireframe

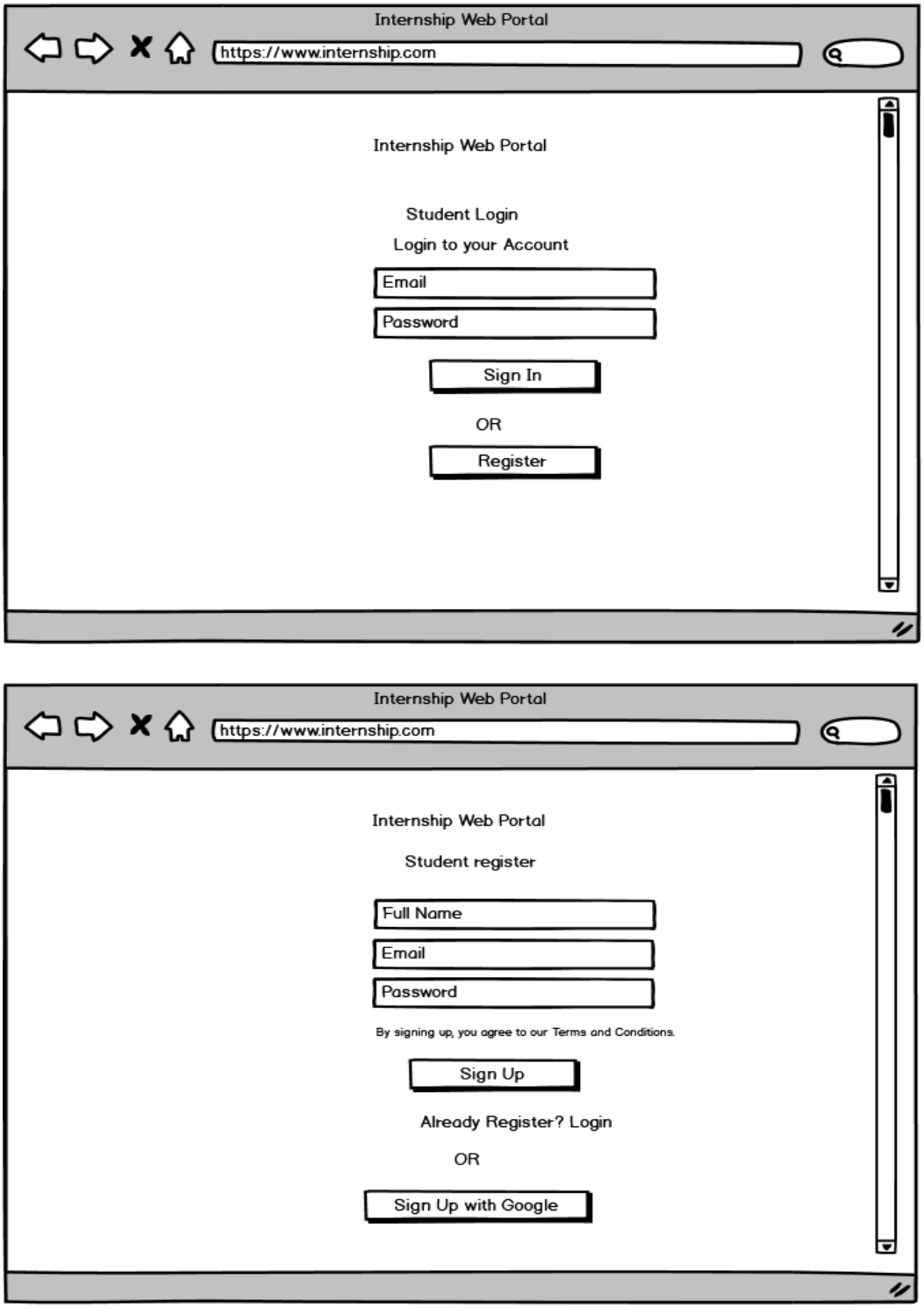
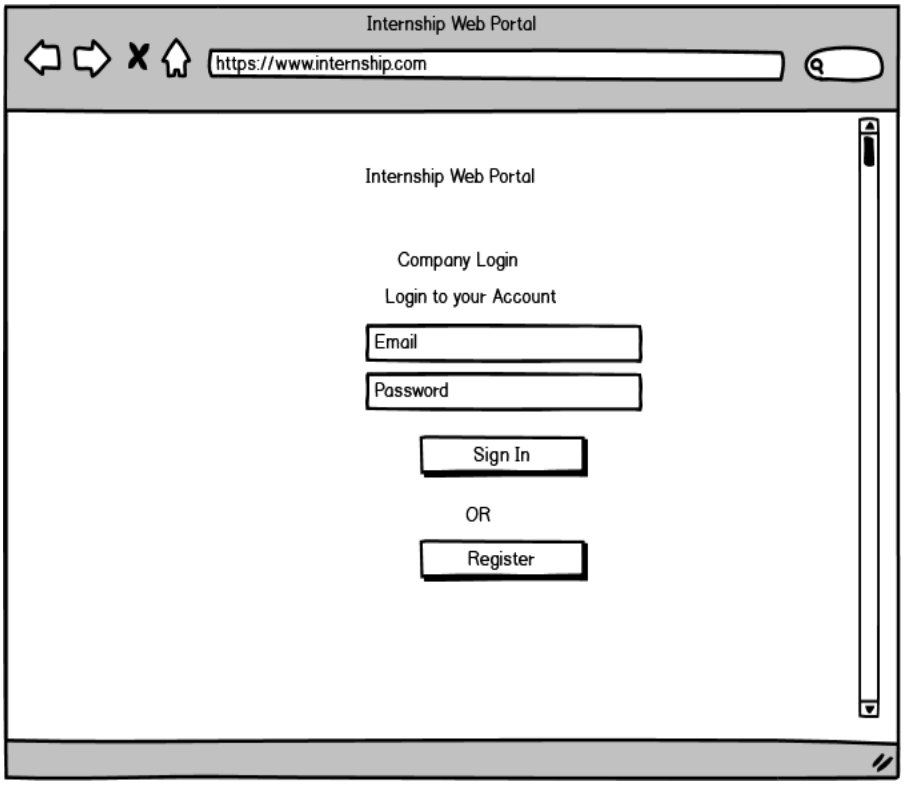


Figure 24: Student login and register wireframe.

2.Company login and register wireframe



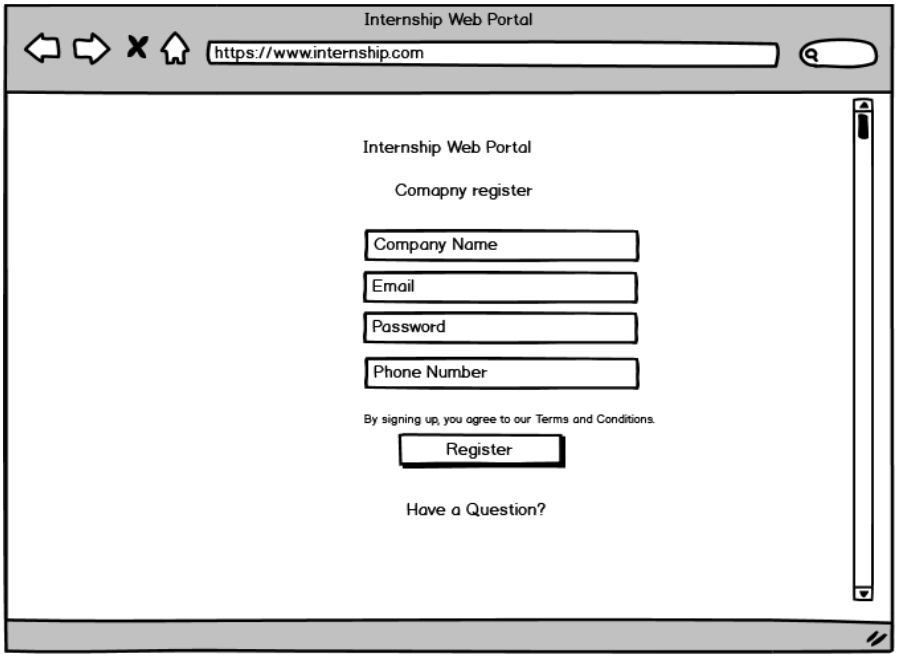


Figure 25:Company login and register wireframe

3.Manage application

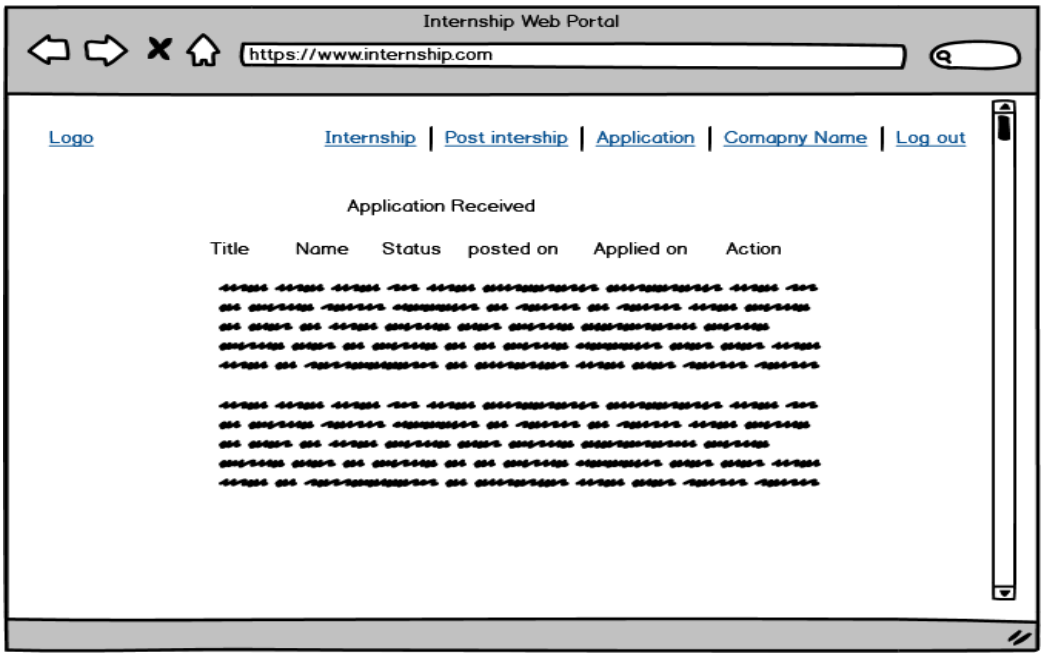


Figure 26: Company managing application wireframe.

4.Apply for internship

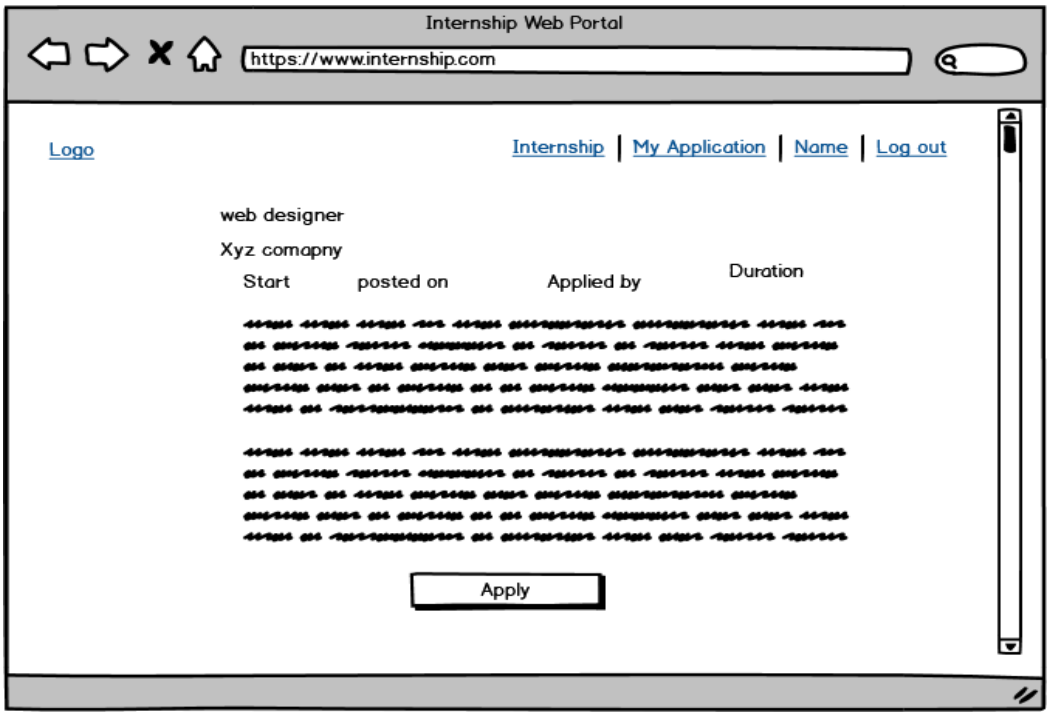


Figure 27:Students applying internship wireframe.

5. Landing Page

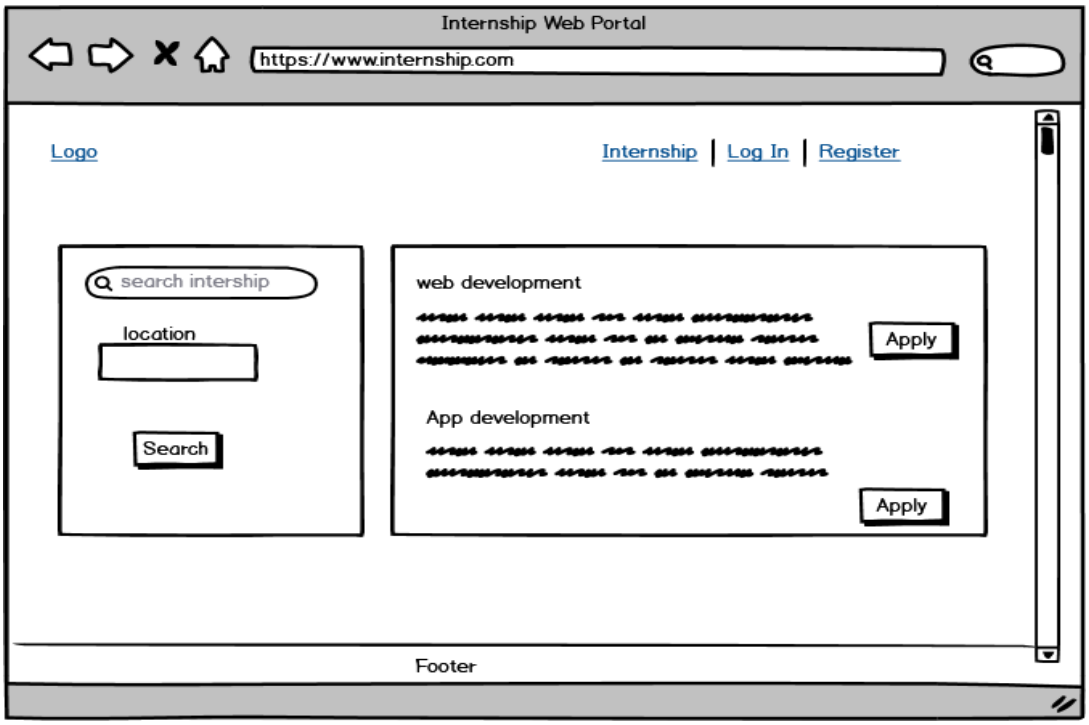


Figure 28:Landing page wireframe.

6.Posting internship vacancy

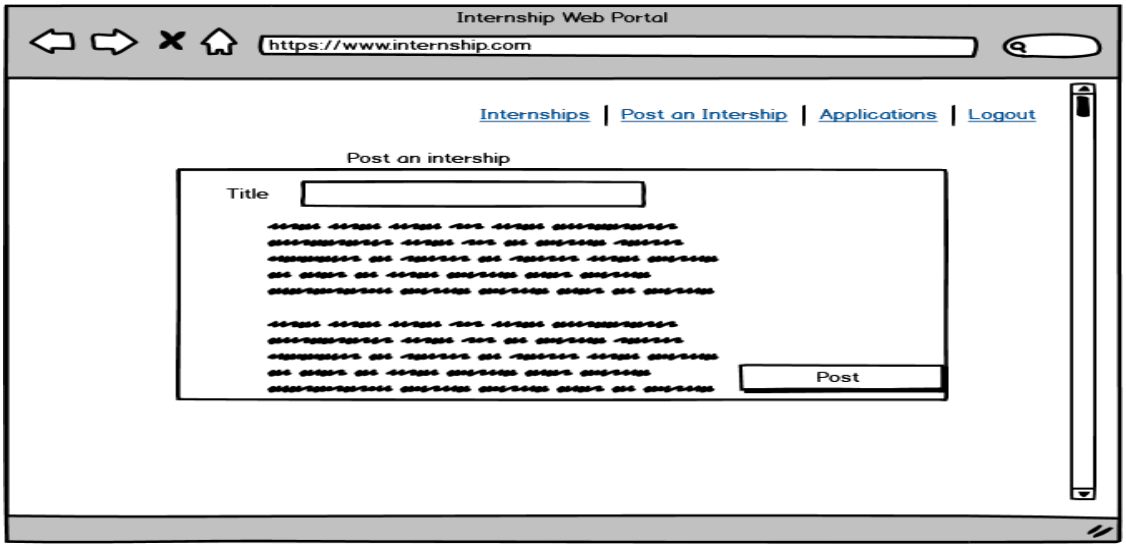


Figure 29: Company posting internship wireframe.

7.5 Software requirement specification (SRS):

7.5.1 Introduction:

7.5.1.1 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.

7.5.1.2 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.

7.5.1.3 References:

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

7.5.1.4 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.

7.5.2 Overall Description:

7.5.2.1 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.

7.5.3 Specific Requirements:

7.5.3.1 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.

7.5.3.2 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.

7.5.4 Non-functional Requirements:

7.5.4.1 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.

7.5.4.2 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.

7.5.4.3 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.

7.5.5 Software System Attributes:

7.5.5.1 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.

7.5.5.2 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.

7.5.5.3 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.

7.5.5.4 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.

7.5.6 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

7.5.7 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.