Krishna School Of Emerging Technologies & Applied Research

A

Project Report on

Campus Recruitment System

Under subject of

Semi-Project

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(Computer Science & Engineering)

Submitted By:

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CERTIFICATE

This is to certify that the project report submitted along with the project entitled Campus Recruitment System has been carried out by Hard Tilwani, Jainam Panchal, and Kirtan Patel under my guidance, in partial fulfilment for the degree of Bachelor of Engineering in Computer Science Engineering, V Semester of Drs. Kiran & Pallavi Patel Global University, during the academic year November 2023.

Ms Jalpa Bhatt	**Dr Nitesh Sureja**
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Acknowledgements

We, the students of **Krishna School Of Emerging Technology & Applied Research,** have worked on the project entitled **Campus Recruitment System**.

Thank You, Drs Kiran & Pallavi Patel Global University for organising such a great subject for us to develop new ideas. We would like to give thanks to our Internal Guide Prof. Jalpa Bhatt, who has given us valuable guidance and helped us to complete our project efficiently. We would also like to thank our Head of the Department, Dr Nitesh Sureja, for allowing us to work on this project.

Krishna School Of Emerging Technology

And Applied Research

Abstract

In today's fiercely competitive job market, employers often face the challenge of finding the ideal candidate for a position. The Campus Recruitment System project addresses this challenge by offering a novel solution. This web-based system streamlines the recruitment process by creating a platform for companies to publish job openings and discover qualified candidates within the campus pool.

The system's user-friendly interface, coupled with its advanced features, enables employers to effortlessly schedule interviews, extend job offers, and maintain seamless communication with potential candidates.

For students and candidates, the system provides a comprehensive platform where they can explore job opportunities, build their profiles, and apply for positions that align with their qualifications and experience. Real-time updates on job openings and candidate applications ensure that students stay informed about the latest opportunities.

In essence, the Campus Recruitment System project is a valuable tool for companies in search of top talent from campuses and for students seeking suitable job opportunities. It facilitates a streamlined and efficient recruitment process, making it a win-win for both employers and candidates. The keywords associated with this project are Campus Recruitment, user-friendly interface, Candidates, Companies, and Real-time updates.

Project Keywords : Campus Recruitment, user-friendly, Candidates, Companies and Real - time updates

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Introduction

The Campus Recruitment System is a web-based system that simplifies the campus recruitment process for both the companies and the Students. It is a comprehensive platform that connects companies with potential candidates from the campus, thereby reducing the time and resources required for the recruitment process.

The system is designed with a user-friendly interface, making it easy for companies to post job openings, search for qualified candidates, and communicate with them. Companies can create their profiles, including information about the company, the job description, and requirements. The system allows them to filter candidates based on their qualifications, experience, and other criteria, ensuring that they find the right fit for the job.

Candidates or the students, on the other hand, can create their profiles on the system, including their educational qualifications, skills, and experience. They can search for job opportunities based on their qualifications and experience, and apply for jobs that match their profiles. The system also provides notifications about job openings that match their qualifications, ensuring that they don't miss any suitable job opportunities.

The system features a dashboard that provides real-time updates on job openings, candidate applications, and company profiles. Candidates can also receive notifications about the status of their applications and stay informed about the progress of their job search.

The Campus Recruitment System project is equipped with advanced features that make the recruitment process easier and more efficient for both companies and students. It is an excellent tool for companies looking to recruit talented candidates from the campus and for students searching for suitable job opportunities. The system is aimed at bridging the gap between companies and students and providing a platform for them to connect and engage in a more streamlined and efficient recruitment process.

1.0 Introduction To Project

The Campus Recruitment System project represents a pivotal initiative designed to revolutionize the campus recruitment process. This project acknowledges the dynamic shifts in the job market and the necessity for organizations to connect with top-tier talent in a more efficient and transparent manner. It aims to deliver an innovative digital solution that will simplify the intricacies of recruitment while enhancing accessibility and engagement for both employers and students.

1.1 Project Objectives

1. Streamlined Job Posting: One of the primary goals of this project is to provide a platform for employers to post job opportunities seamlessly. This will not only reduce the administrative workload associated with recruitment but also expedite the process.

2. Enhanced Candidate Interaction: The project intends to offer students an interactive space where they can explore job listings, submit applications, and showcase their qualifications. By doing so, it empowers them to make informed career choices.

3. Transparency and Fairness: The project emphasizes transparency and fairness in the recruitment process. It aims to provide equal access to opportunities for all students, ensuring a level playing field.

4. Optimized Recruitment: Through data-driven insights and analysis, the project aspires to optimize job matching. Employers will be equipped with tools to identify the most suitable candidates, leading to better recruitment decisions.

1.2 Innovative Digital Platform

The Campus Recruitment System will serve as an innovative digital platform. It offers a user-friendly interface that simplifies job posting and application management. Recruiters can post job opportunities, track the application process, and gain valuable insights into their recruitment activities. Simultaneously, students can access a repository of job listings, submit applications, and maintain detailed profiles to present their qualifications to potential employers.

1.3 Project Impact

1. The successful implementation of the Campus Recruitment System project promises numerous advantages for all stakeholders involved. For employers, it will reduce administrative overhead, enhance the quality of recruits, and expedite the hiring process. Students will benefit from increased access to a diverse array of opportunities and a platform to showcase their abilities. This project offers a significant step towards modernizing and optimizing the campus recruitment process, aligning it with the demands of today's competitive job market.

2. The subsequent sections of this report delve into the project's purpose, objectives, scope, technology and literature review, project planning, and scheduling, providing a comprehensive understanding of the project's context and goals.

1.4 Scope

The scope of the Campus Recruitment System project encompasses a comprehensive set of features and functionalities that collectively redefine and enhance the campus recruitment process. By defining the project's scope, we establish the boundaries of the system, outlining what it can and cannot do, and detailing the breadth of its capabilities.

1.5 Key Components of the Project Scope:

1. Job Posting and Management: The system will enable employers to post job opportunities, including job descriptions, qualifications, and application deadlines. Recruiters will also be able to manage and monitor applications efficiently.

2. Student Profiles: Students will have the capability to create and maintain comprehensive profiles. This feature allows them to showcase their qualifications, skills, and experiences, offering recruiters a clear and detailed view of their credentials.

3. Application Submission: The platform will facilitate the submission of job applications by students. It will also include features for the attachment of resumes and other relevant documents.

4. User Authentication and Security: To ensure data integrity and user privacy, the system will implement robust user authentication and security measures.

5. Data Analytics and Reporting: The system will capture and analyze data related to job applications, recruitment progress, and user interactions. This data will be leveraged to provide insights and reports for recruiters.

6. Matching Algorithms: The system will incorporate intelligent matching algorithms to connect students with job opportunities that align with their qualifications and career goals. These algorithms will improve job matching and enhance the overall recruitment process.

7. Transparency and Fairness: Ensuring fairness in the recruitment process is a core element of the project scope. The system will aim to provide equal access to opportunities for all students, irrespective of their background or academic standing.

8. Accessibility: The Campus Recruitment System will be accessible to both employers and students, ensuring that users can engage with the platform from various devices and locations.

1.6 Exclusions from the Scope

It's equally important to define what is not included in the project scope to avoid scope creep and maintain focus. Exclusions from the scope include:

1. External Assessment: The project does not involve the assessment of candidates beyond the scope of job application and matching. This includes interviews, assessments, and evaluations, which remain the responsibility of employers.

2. Recruitment Decisions: While the system facilitates job posting, application submission, and matching, the final recruitment decisions are made by the employers. The system does not influence or participate in these decisions.

3. Hardware Procurement: The project scope does not encompass the procurement of hardware components. The hardware required to run the system will be the responsibility of the organization implementing the Campus Recruitment System.

4. Network Infrastructure: Establishing and maintaining the network infrastructure necessary for the system's operation is not part of the project scope. This infrastructure will be handled by the organization.

5. Customization Beyond Initial Deployment: Customization and expansion of the system beyond its initial deployment may not be included in the scope. Additional features and adaptations may be addressed in future phases.

1.7 Technology Stack

In the development of the Campus Recruitment System, a range of modern technologies and tools have been carefully selected to ensure robustness, scalability, and user-friendliness. The chosen technology stack includes:

1. Web Development Framework: The project utilizes a popular web development framework, such as Ruby on Rails, Django, or Express.js, to build the core of the system. These frameworks offer features for rapid development, maintainability, and security.

2. Database Management: A relational database management system (RDBMS) like PostgreSQL, MySQL, or Oracle is used for data storage. These systems provide data integrity and facilitate complex queries and reporting.

3. Front-End Technologies: The user interface is developed using modern front-end technologies like HTML5, CSS3, and JavaScript. Additionally, a JavaScript framework, such as React or Angular, is employed to create a responsive and dynamic user experience.

4. Server Hosting: Cloud-based server hosting platforms like Amazon Web Services (AWS) or Microsoft Azure are considered for deployment. These platforms offer scalability, reliability, and global accessibility.

5. Data Analysis: For data analysis and reporting, technologies such as Python with data analysis libraries (e.g., Pandas) and data visualization tools (e.g., Matplotlib, Tableau) are considered. These tools provide insights into user interactions and recruitment progress.

6. Mobile Optimization: To ensure accessibility from various devices, the project includes mobile optimization using responsive design techniques.

1.8 Literature Review

1. The system allows access and effective use of the organization using a proper login. This allows the placement officer in the college to manage information about placement. Here, students with access can add their information and can use it as a resume. One-time registration is only required.

2. We are doing this research to understand how aesthetics and design of e-commerce web pages influence the user in using these websites. In accordance with the study, aesthetic, design and simplicity of web pages providing all important amenities itself influence most of the users and users get more attracted to these systems.

3. It is being tested to determine which is better offline or online in a modern world. The implications for evaluating these media vary for different purposes. But in the fast evolving modern world and increase in new technologies to simplify life, the online media is much better for all kinds of activities. It can be health, government, academic, commercial etc. with fast and easy access to data which becomes more difficult in the offline world.

2.0 Modeling and Analysis

An analysis model is a representation of a system or a process that is used to analyze and understand the behavior and functionality of that system or process. They are often used to predict or optimize the performance of a system, to identify potential problems or bottlenecks, or to design new systems or processes. Analysis model operates as a link between the 'system description' and the 'design model. In the analysis model, information, functions and the behavior of the system is defined and these are translated into the architecture, interface and component level design in the 'design modeling'.

2.1 Structured analysis

1. Considers data and processes that transform data as separate entities.

2. Structure analysis is a top-down approach.

3. It focuses on refining the problem with the help of the functions performed on the problem domain.

2.2 Object-oriented analysis

1. Focuses on the definition of classes and the manner in which they collaborate to effect customer requirements.

2. Defines the system as a set of objects which interact with each other with the services provided.

3. Analyses the problem domain and then partitions the problem with the help of objects.

4. The concept of object, attributes, class, operation, inheritance, and polymorphism should be known to work on object oriented modeling.

2.3 Flow-Oriented Modeling

2.3.1 Flow Diagram

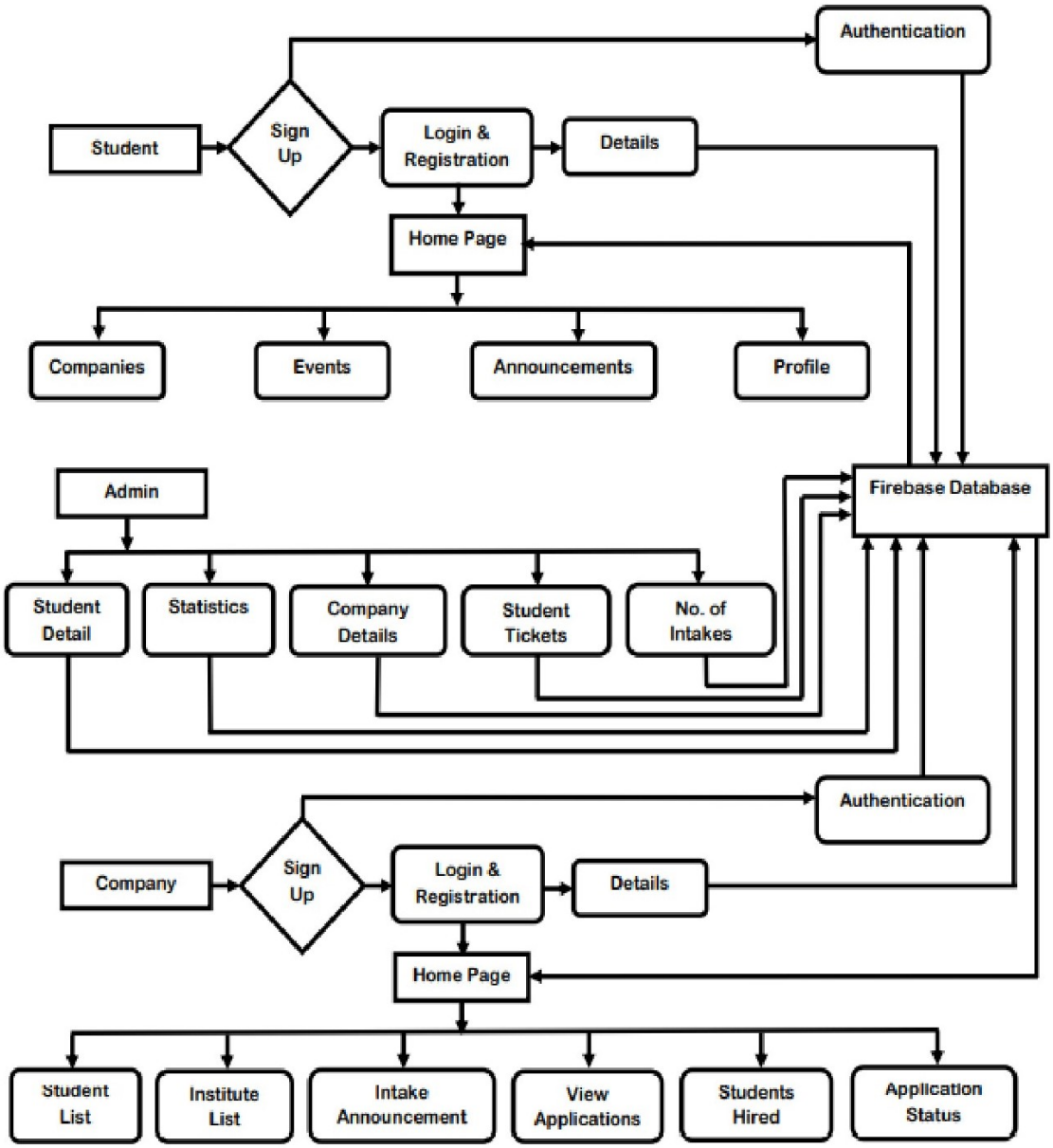


Figure 1 Flow Diagram

2.3.2 DFD (Data Flow Diagram) / Zero Level Context Level DFD

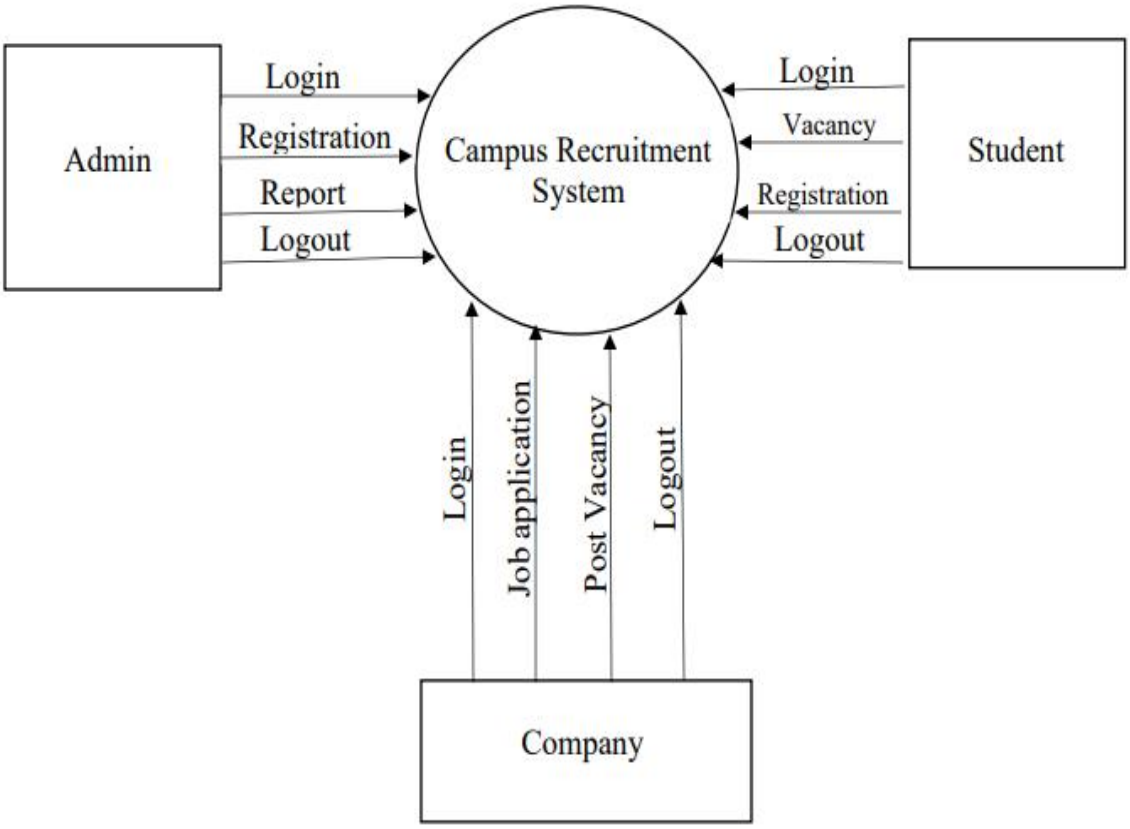
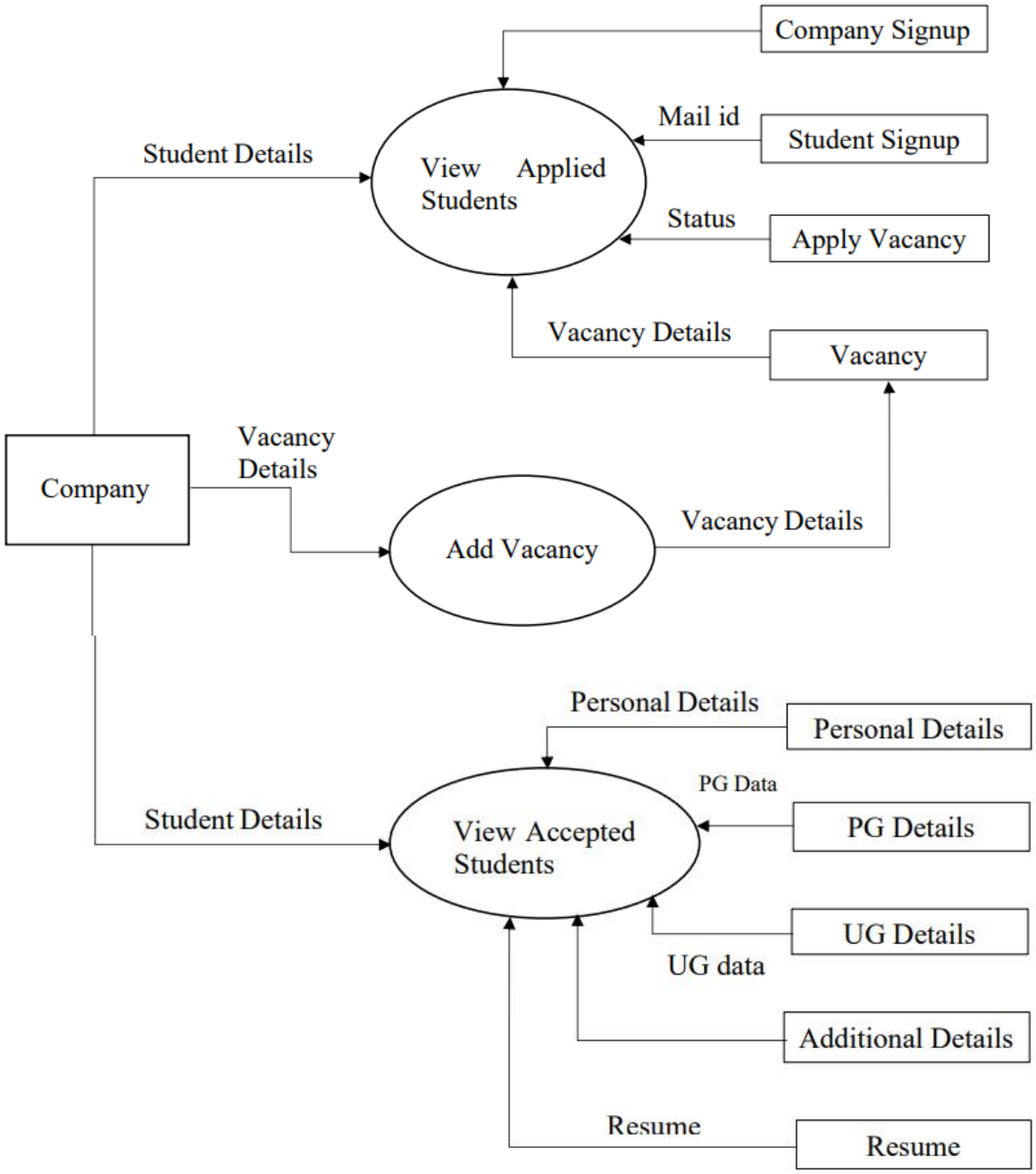


Figure 2 Data Flow Diagram

2.3.3 Level 1 (Company)



2.3.4 Level 1 (Student)

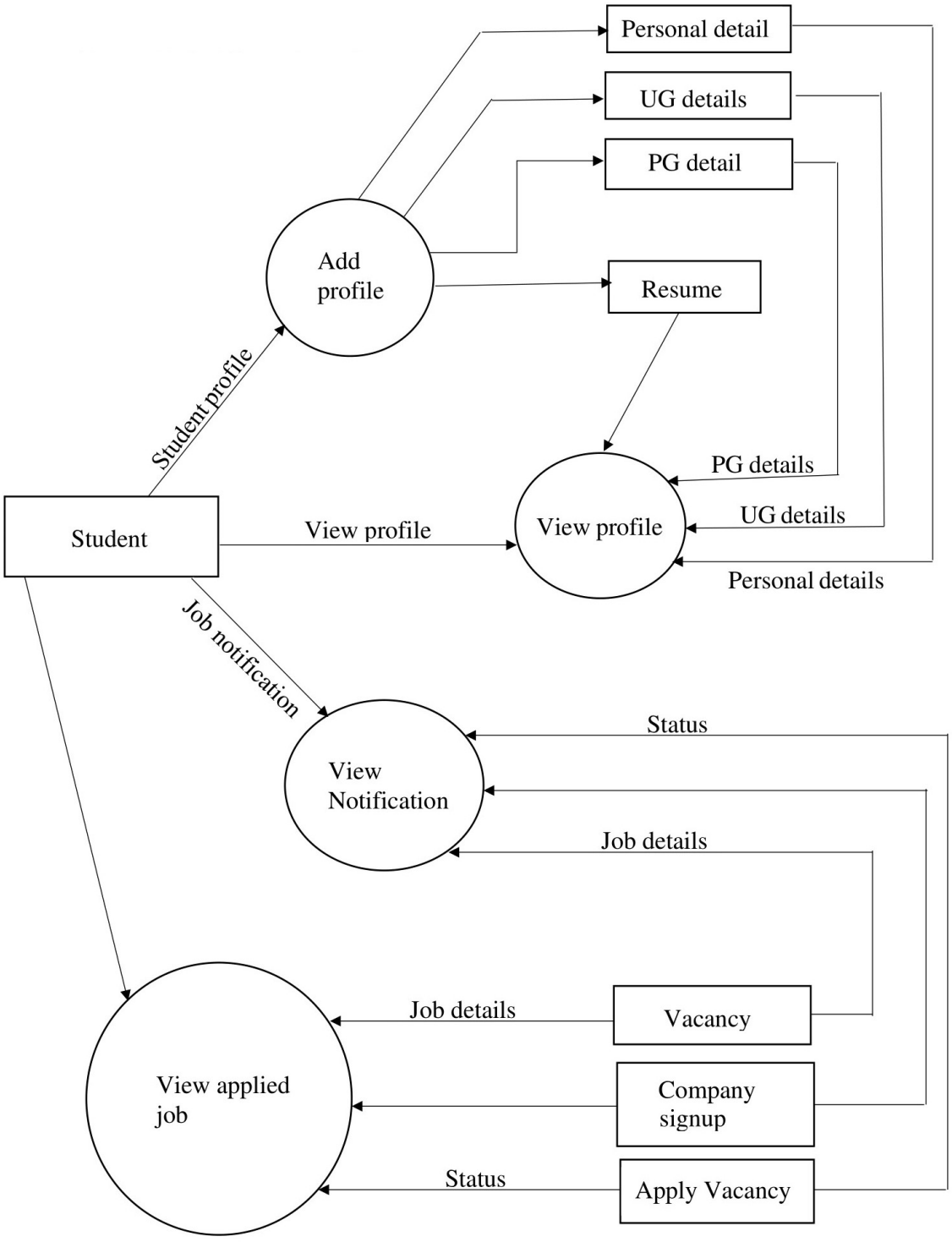


Figure 4 Level 1 Student Diagram

2.3.5 Level 1 (Admin)

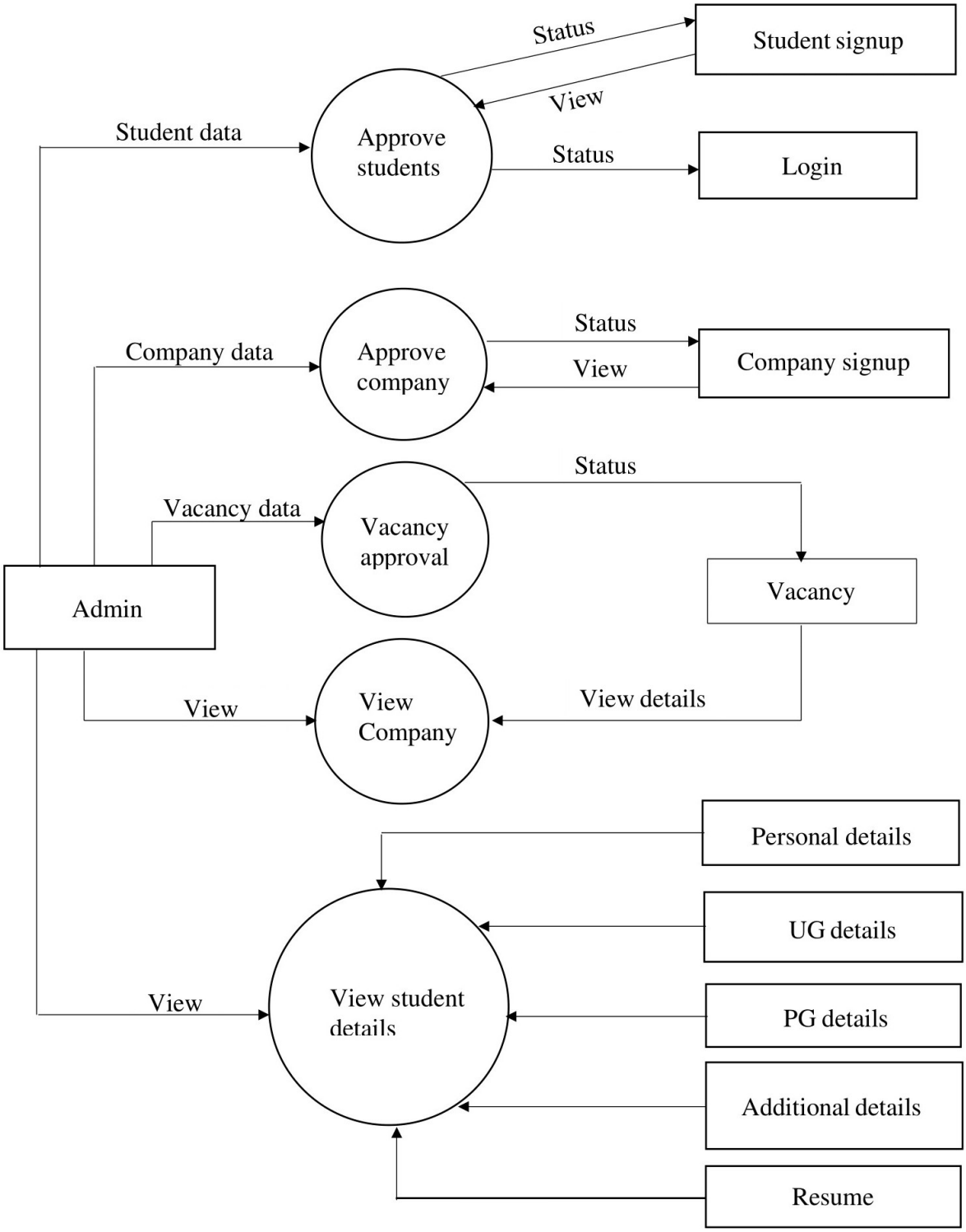


Figure 5 Level 1 Admin Diagram

Use Case :

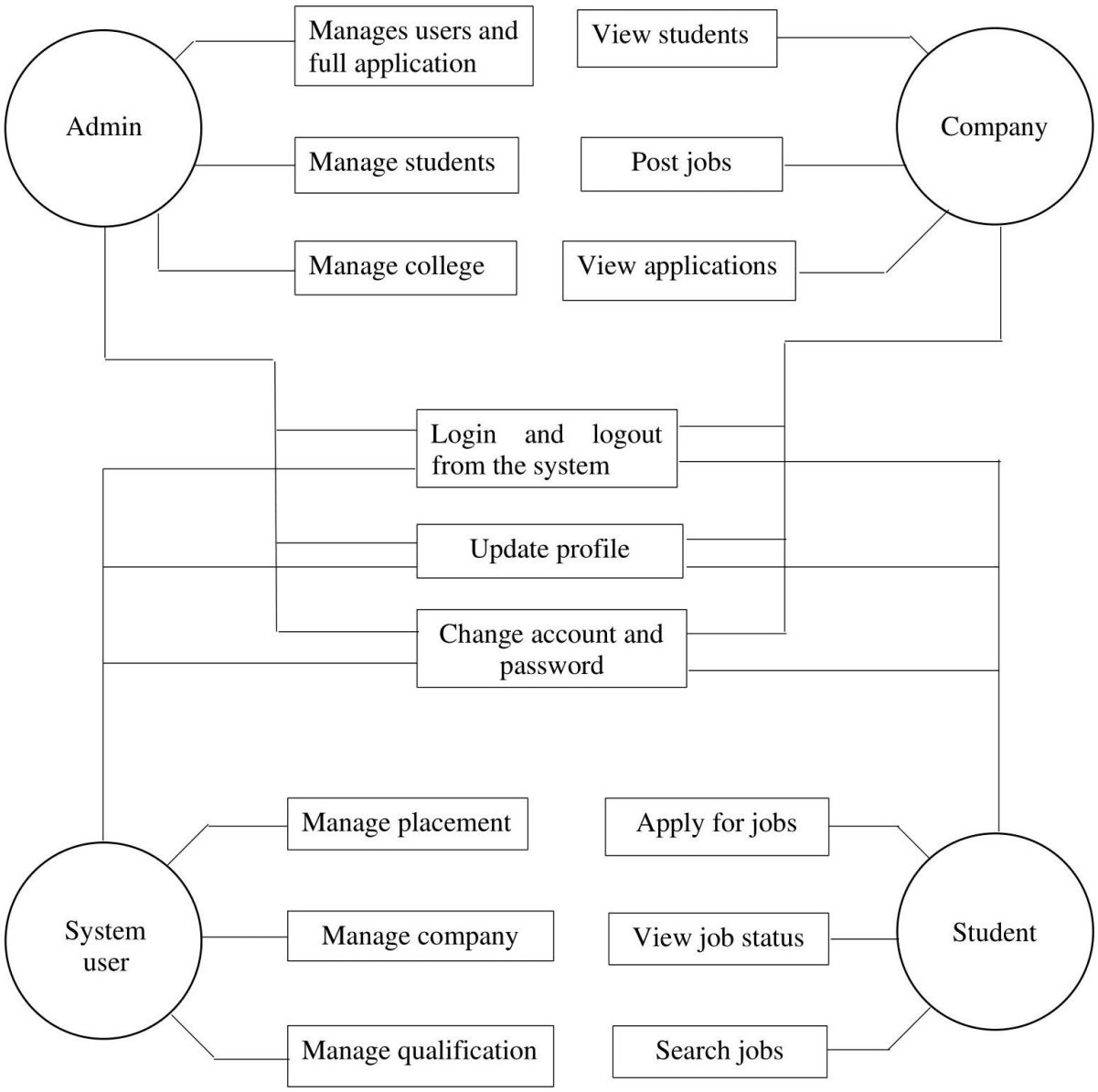


Figure 6 Use Case Diagram

3.0 Engineering Economics of Design

Cost estimation is the process of approximating the expenses associated with a project, program, or product. It involves identifying and analyzing all the resources required for a project, including personnel, materials, equipment, and any other relevant costs. Cost estimation is an essential part of project planning, as it helps stakeholders to make informed decisions about resource allocation and budgeting. Cost estimation is a critical part of project planning, and it is important to ensure that estimates are as accurate as possible to avoid budget overruns or other issues. It is the fundamental part of project cost management. Cost estimation validates the project budget and enables the monitoring and controlling of project costs when the project is in progress.

3.1 Tentative Cost

1. Tentative cost refers to an estimated or approximate cost of a project or product. It is an initial estimate of the expected expenses, which is subject to change as more information becomes available during the planning and execution stages of the project.

2. Tentative cost estimates are typically made early in the project planning process, using preliminary information such as the scope of the project, the expected timeline, and the resources required.

3. These estimates are often based on historical data, industry standards, or expert judgment. Tentative cost estimates are useful in providing a rough idea of the financial resources required to complete a project, allowing stakeholders to determine if the project is feasible and within their budget. However, it is important to note that these estimates are not set in stone and may be subject to change as more information becomes available.

4. As the project progresses, and more detailed information becomes available, the tentative cost estimate can be refined and updated to provide a more accurate projection of the project's total expenses.

3.2 Time Estimation Project

Features	Optimistic (in hours)	Realistic (in hours)	Pessimistic (in hours)
Architecture Development	13	16	18
Admin Page and User Authorization	20	22	26
User Profile Page	8	12	14
AWS Deployment	16	20	23
Total Developer hours	57	70	81
Total QA hours	30	35	40
Total Design hours	18	20	22
Total PM hours	105	125	143

Table 1 Time Estimation Table

4.0 Case Study

4.1 Campus Recruitment System Case study:

Most of the important processes in the institutes are carried out manually such as the registration of the students, managing huge information about students, faculty members. A college campus recruitment system that consists of a student login, company login, and admin login. The project is beneficial for college students, various companies visiting the campus for recruitment and even the college placement officer. The software system allows the students to create their profiles and upload all their details including their marks onto the system. The admin can check each student's details and can remove faulty accounts. The system also consists of a company login where various companies visiting the college can view a list of students in that college and also their respective resumes. A college campus recruitment system that consists of a student login, company login, and admin login. The project is beneficial for college students, various companies visiting the campus for recruitment and even the college placement officer. The software system allows the students to create their profiles and upload all their details including their marks onto the system. The admin can check each student's details and can remove faulty accounts. The system also consists of a company login where various companies visiting the college can view a list of students in that college and also their respective resumes.

Reference:

Author Name: Samiksha Dalal

Author Title: Campus Recruitment System

Date of Publication: 25 March 2020

Published at: IRJET

4.2 Campus Recruitment System Case study:

Generally, nowadays every college is conducting placement drives to provide maximum employment for the students so conducting placement drives is not only necessary we need to make the reach of that drives to students. So, this Campus Recruitment System application provides the solution. Campus Recruitment System is the software aimed at providing a wide range of access to the administrator in managing and monitoring the complaints registered by the customer regarding the problems they face in accessing the connections extended by the Campus Recruitment System. The administrator can even maintain the record of the students in the organization in allocating the tasks of attending to the complaints raised by the students. This network-based application provides the user of the system a consolidated view of the things managed in the software depending on the benefits assigned by the admin accordingly. Student also sees their cart and they can send complaints to service provider if they have any problems regarding Job Placement. The system also consists of a company login where various companies visiting the college can view a list of students in that college and also their respective resumes. This software system permits students to check a list of companies who have posted for vacancy. The administrator has all the rights of the system, can moderate and remove any details not related to college placement guidelines. The system handles student as well as company data and efficiently displays all this data to respective sides.

Reference:

Author Name: Deepanshu Mittal, Bharat Singh Thakur, Sachin Bansal

Author Title: Campus Recruitment System

Date of Publication: 5 May 2022

Published at: IRTCR

5. Design Calculation

5.1 Material:

• Android Smartphone Version 5.5 and Above.

• IOS Smartphone Version 13.1 and Above.

• Stable Internet Connection.

• Microsoft Firebase Real-time Database.

• Desktop

• Figma UI/UX Design.

5.2 Standard / Safety Rules:

• Will not work without the internet.

6. Prototype

Launch Screen

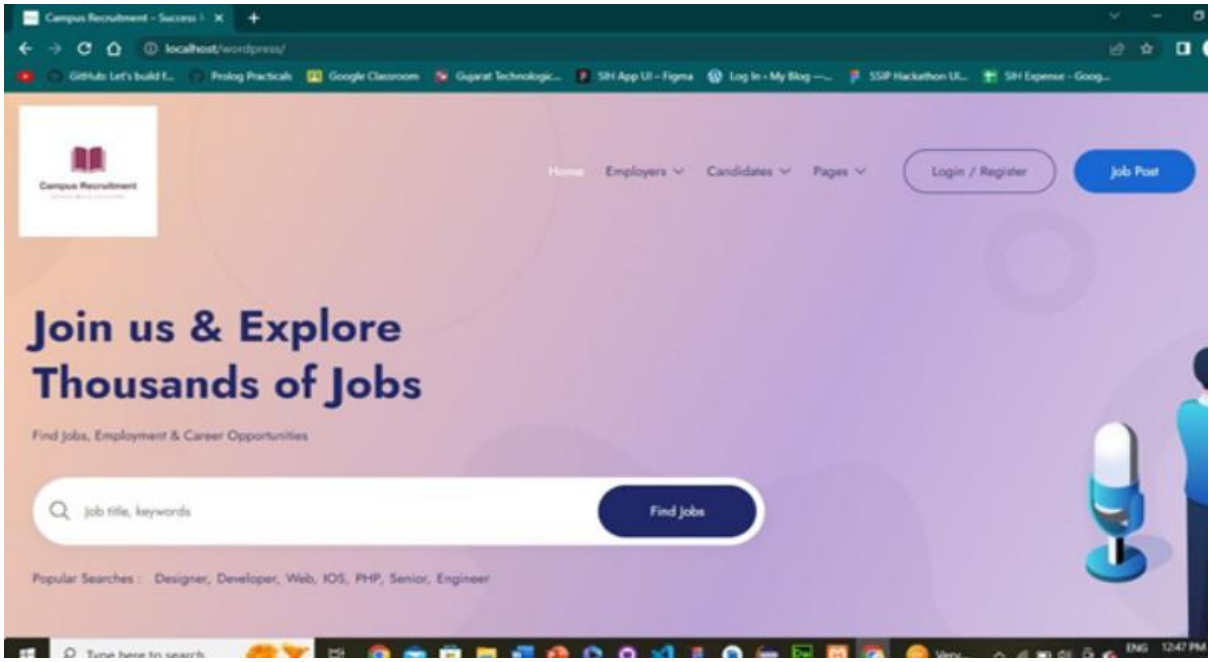


Figure 7 Launch Screen

Job Categories

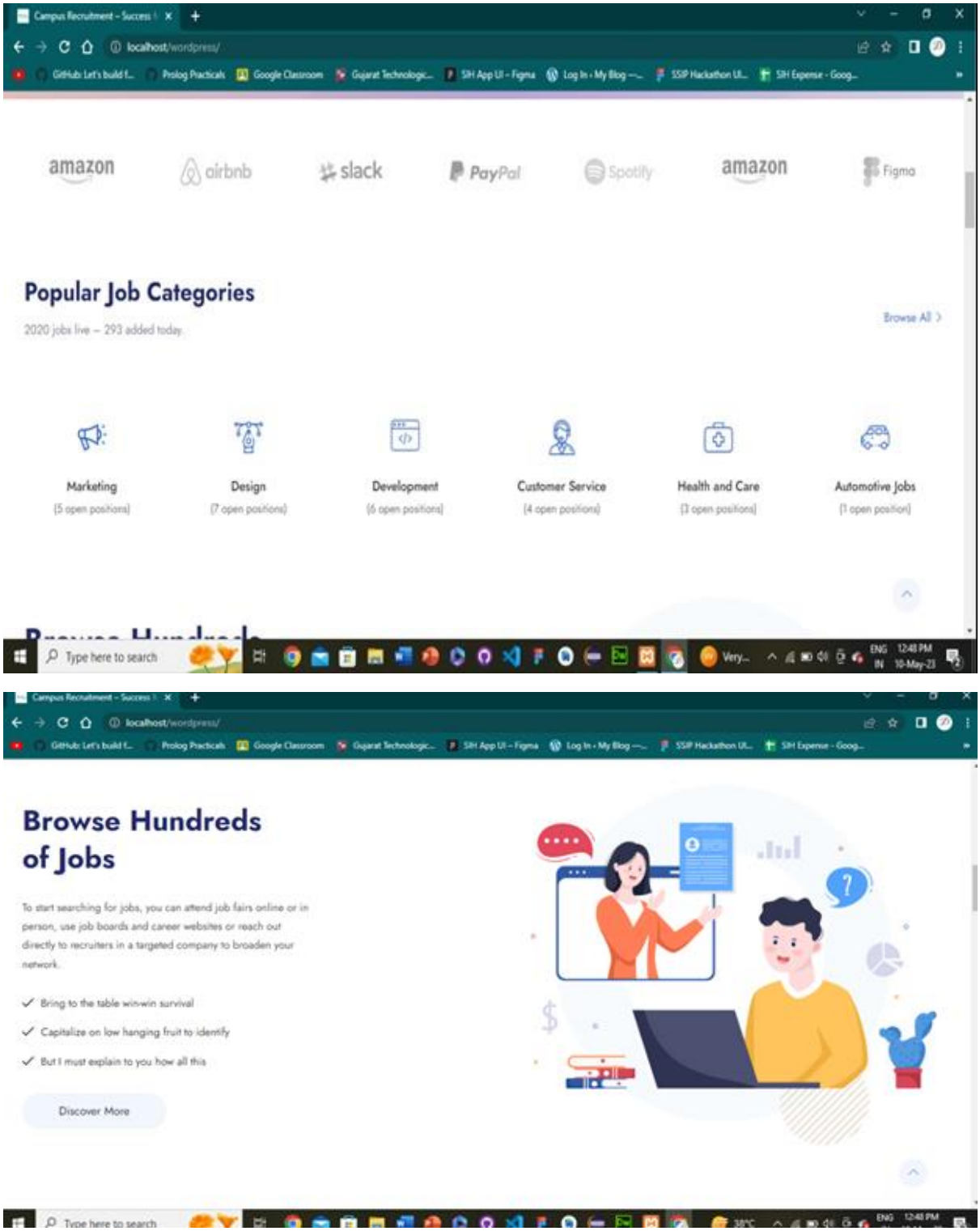
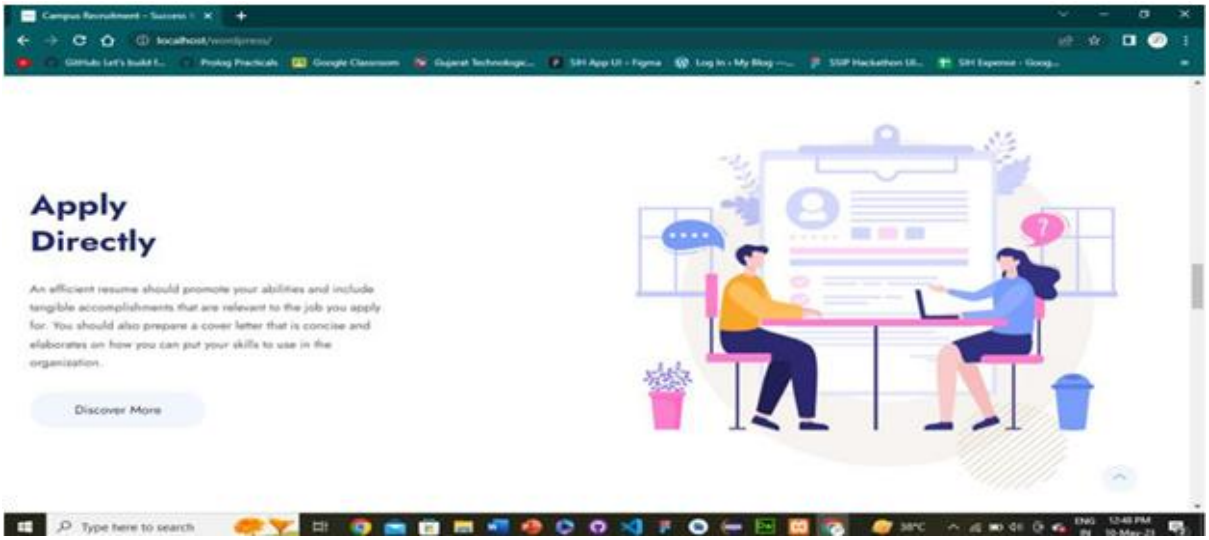


Figure 8 Job Categories

Apply



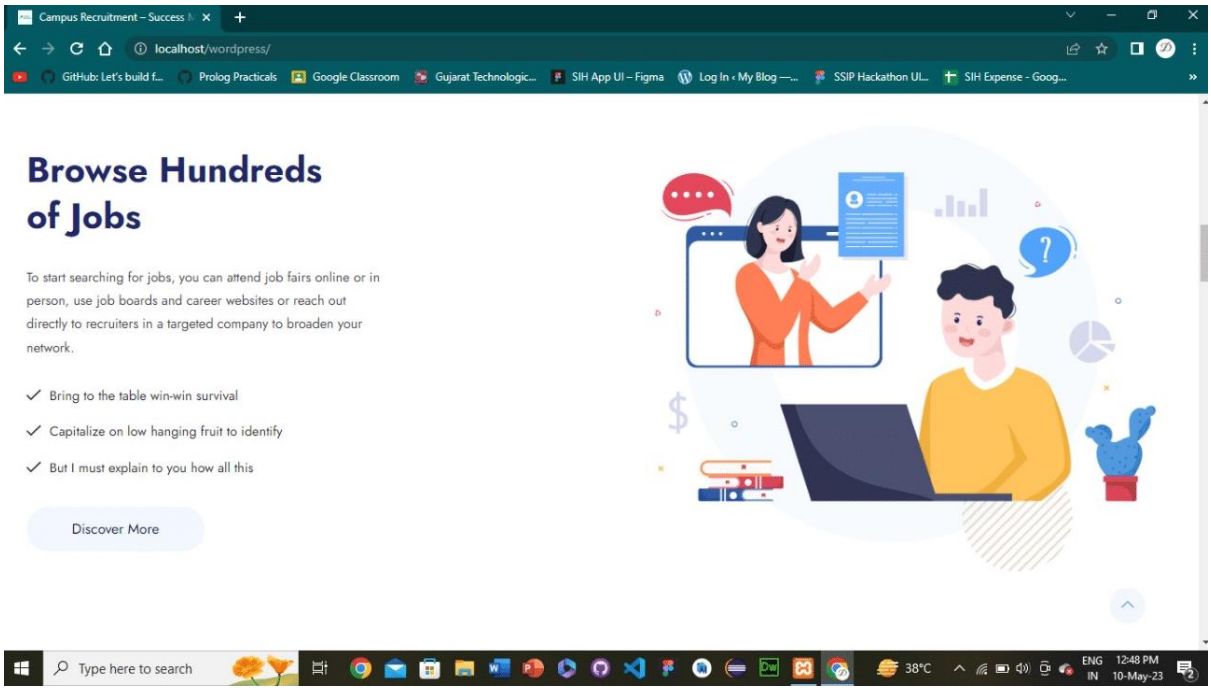


Figure 9 Apply Page

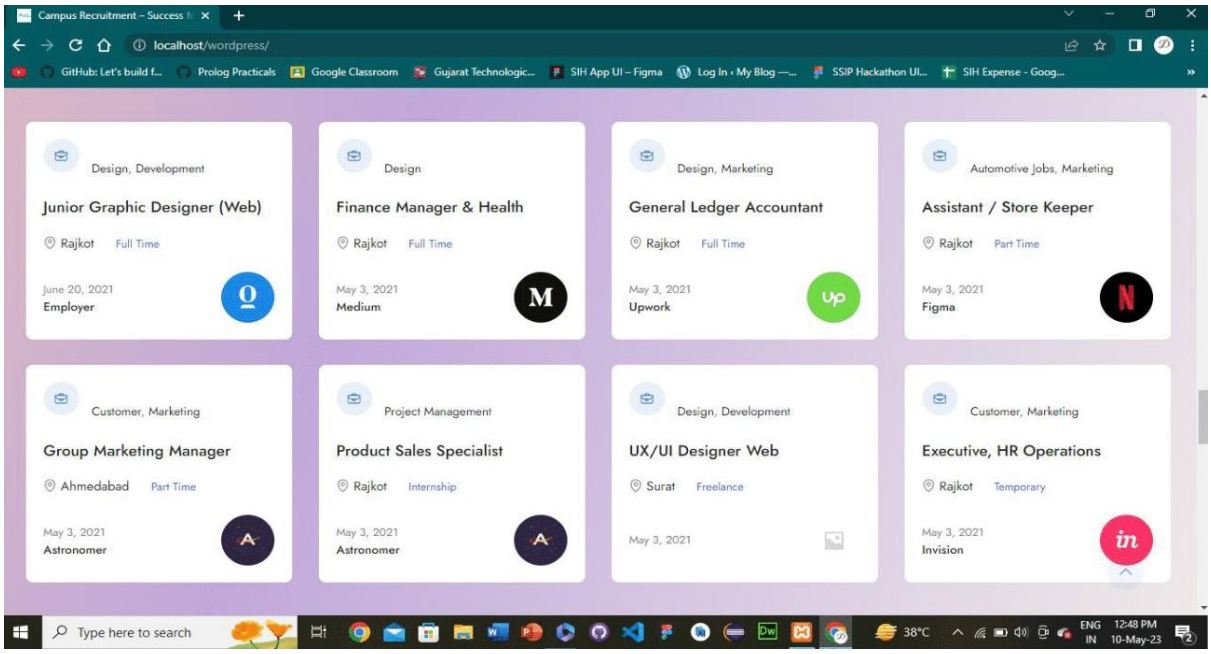


Figure 10 Job Listings

Admin View

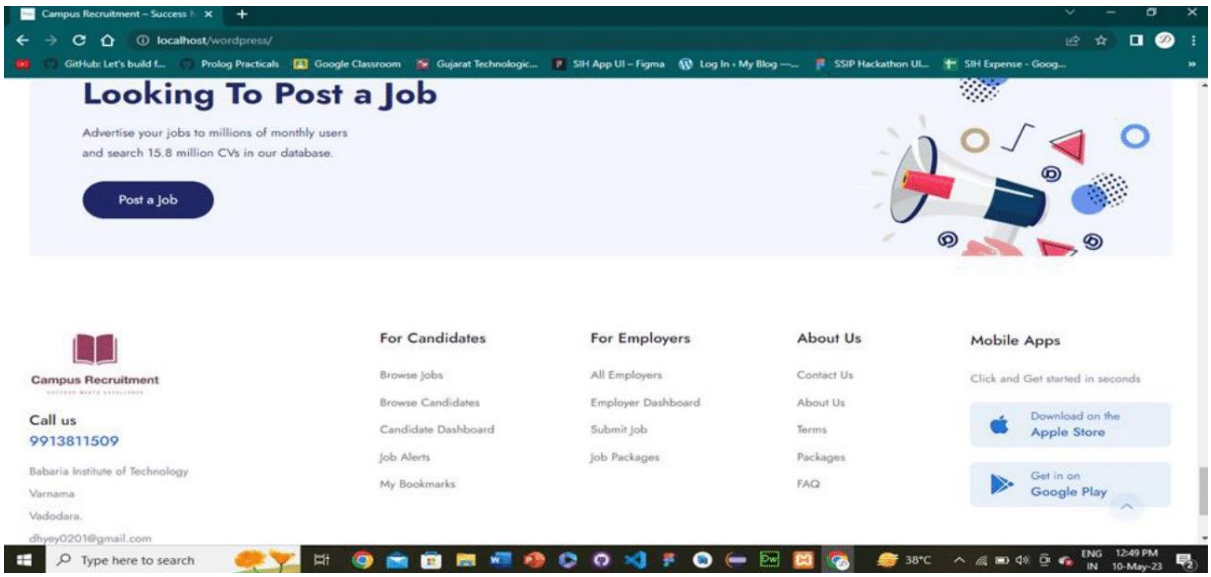


Figure 11 Admin View

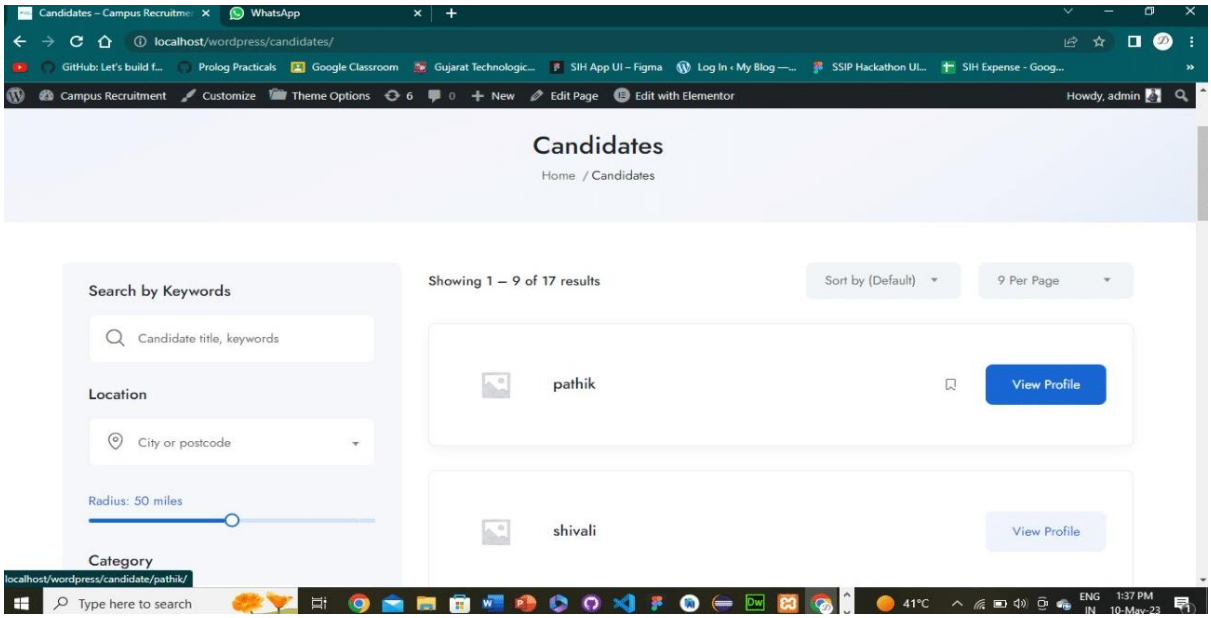


Figure 12 Candidate Selection

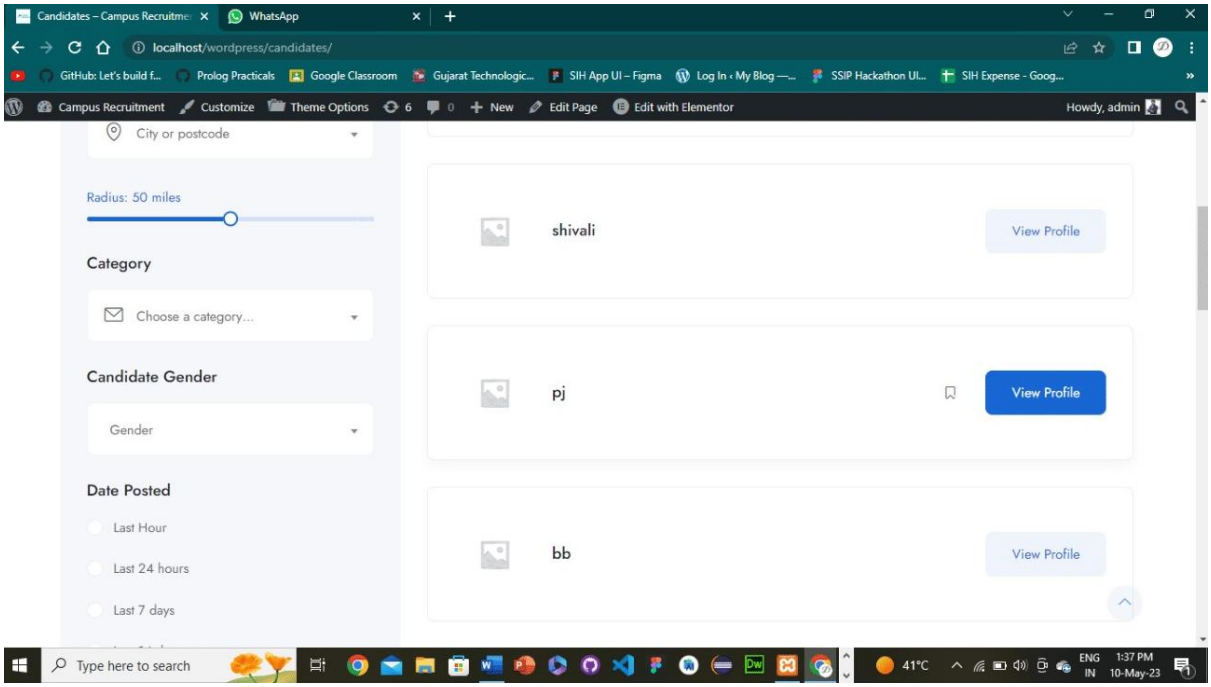


Figure 13 Shortlisting View

7. Future Scope

- Focus on Communication
- Job-winning profile and Resume Builder
- Virtual / Video Interview
- Streamlined process with transparency
- Effective corporate outreach

8. Conclusion

1. The Campus Recruitment System is a useful and efficient tool for streamlining the recruitment process for companies and students alike. With its user-friendly interface and various features, the system simplifies the process of job posting, application, and interview scheduling. The administrative panel also enables college administrators to manage and monitor the recruitment process, providing a comprehensive solution for all stakeholders involved.

2. The Campus Recruitment System saves time, resources, and effort for both recruiters and college administrators. It also provides a more efficient and streamlined process for students to apply for job opportunities. Overall, the system is a valuable addition to the recruitment process, enabling companies to identify and hire fresh talent from college campuses more efficiently.

3. Campus Recruitment system is a platform that provides an interface between students and company. Campus Recruitment system domain has a very vast scope in future. Placement is a process which occurs mostly in every college campus. If this process is automated then it can be reliable and efficient for students, company and college placement departments.

4. Campus Recruitment is important in every student's life and if the candidate gets recruited for the proper job as per his/her specifications then it would be beneficial.