

ON CAMPUS PLACEMENT MANAGEMENT SYSTEM

Zubia Muqtadir¹, Habeeba Ruhi², Syeda Sidra Fatima³, Mrs. M. Shalini⁴

¹Dept of IT, STLW, India²Dept of IT, STLW, India³Dept of IT, STLW, India

⁴Assistant Professor - Dept of IT, Stanley College of Engineering and Technology for Women, India

Abstract— The Placement Management System project aims to revolutionize the traditional placement processes in educational institutions by utilizing full-stack development, including React for the frontend and Spring Boot for the backend, with MySQL for the database. The primary motivation stems from personal experiences of inefficiencies in manual placement methods, which often involve significant paperwork and miscommunications. This project provides a centralized and automated platform to streamline job postings, student registrations, interview scheduling, and placement tracking, significantly enhancing efficiency and reducing errors. The system's key modules include the Admin, Company, Student, and Head of Department (HOD) modules, each serving distinct roles in the placement process. The Company module, for instance, allows companies to manage job postings, including adding, deleting, modifying, and updating job listings, along with eligibility criteria and detailed descriptions. Future scope includes the potential integration of a recommendation system using machine learning techniques to better match students with job opportunities based on their profiles and preferences. This system not only improves the placement experience for students and employers but also fosters seamless collaboration and better recruitment outcomes.

Keywords— React, Spring Boot, MySQL, Recruitment, Placement Automation, Centralized Platform

I. INTRODUCTION

The placement management system project aims to transform how educational institutions handle placements by leveraging full-stack development, which covers the entire web application lifecycle. This project addresses the inefficiencies of traditional methods—such as cumbersome paperwork and communication gaps—by providing a centralized, automated platform. The system will streamline processes like job postings, student registrations, interview scheduling, and placement tracking, enhancing efficiency and reducing errors. It aims to improve the placement experience for students and employers, enabling seamless collaboration and better recruitment outcomes. This report outlines the domain of full stack development, detailing client and server software components, and explains the motivation, objectives, and scope of the project. Through this system, we demonstrate how technology can optimize the placement processes in educational institutions.

The primary objective of the placement management system is to revolutionize how educational institutions handle placements by leveraging technology for enhanced efficiency, transparency, and effectiveness. The system comprises four key modules: Admin, Company, Student, and Head of Department (HOD). By centralizing and automating tasks such as registration, job application, profile management, and communication, the system aims to

streamline workflows, eliminate redundancies, reduce errors, and accelerate placement outcomes. This enhances data management, fosters effective communication, and facilitates successful placements for students and employers. The system also aims to improve the overall experience for both students and employers. Students gain easy access to job opportunities, resources, and support services, empowering them to make informed career decisions. Employers benefit from a streamlined recruitment process, enabling them to efficiently identify and recruit top talent. Ultimately, the objective is to create a seamless platform that ensures smoother placements and better outcomes for all stakeholders involved.

II.SYSTEM ARCHITECTURE

The system architecture for the placement management system is described, highlighting the MVC (Model-View-Controller) framework used to structure the application. This architecture ensures a clear separation of concerns, enhancing maintainability and scalability.

Interaction Flow

1. View to Controller: The user interacts with the web application through the view layer. When an action is performed (e.g., clicking a button), the view sends an HTTP request to the controller.

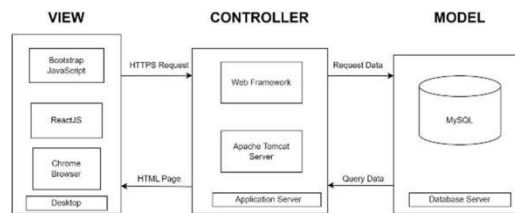


Fig no:1 System Architecture

2. Controller to Model: The controller processes the HTTP request and determines the necessary action. It then sends a request for data to the model, which involves querying the MySQL database.

3. Model to Controller: The model executes the query on the database server and retrieves the necessary data. This data is then sent back to the controller.

4. Controller to View: The controller takes the data from the model and prepares it for presentation. It then sends the processed data back to the view as an HTML page, which is rendered in the user's browser.

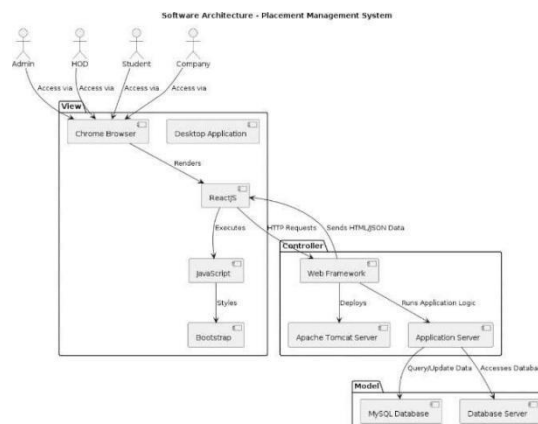


Fig no:2 Software Architecture

Use-Case Diagram

The use-case diagram for the placement management system illustrates the interactions between various users and the system. The diagram identifies four primary actors—Admin (The Placement Officer), Head of Department (HOD), Student, and Company—each with specific roles and responsibilities. Below is a detailed explanation of the use cases and how they are performed by different modules. The use-case diagram for the placement management system provides a clear and structured representation of the interactions between different users and the system. Each actor has specific roles and responsibilities, and the system supports various functionalities to streamline the placement process. By automating and centralizing these tasks, the placement management system aims to enhance efficiency, reduce errors, and improve the overall experience for all stakeholders involved.

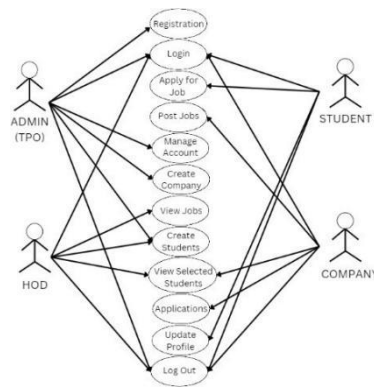


Fig no:3 Use-Case Diagram

III. METHODOLOGY

1. ADMIN Module

The admin module is the backbone of the Placement Management System, providing comprehensive control over system functionalities. It offers features such as user authentication, dashboard visualization, student and company management, and job posting administration. Administrators can efficiently manage user roles, permissions, and access levels, ensuring system security and integrity. The intuitive user interface and robust backend architecture enable seamless performance of administrative tasks, facilitating smooth operation and maintenance of the placement processes.

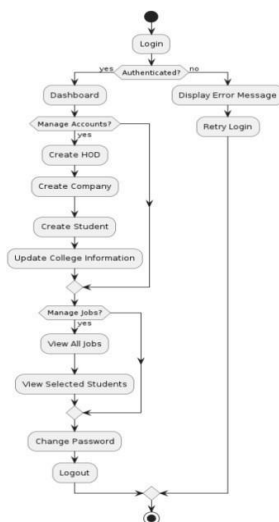


Fig no:4 Admin Module Flowchart

2. Company Module

The company module empowers companies to efficiently manage job postings for eligible students. Through this module, companies can add, delete, modify, and update job listings, ensuring that the information is current and relevant. Each job posting includes comprehensive details such as eligibility criteria, job descriptions, and the requirements for each recruitment round. This streamlined process allows companies to effectively communicate their hiring needs and engage with potential candidates seamlessly.

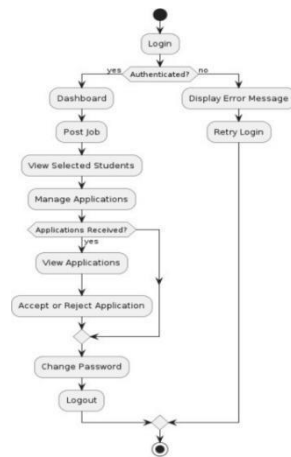
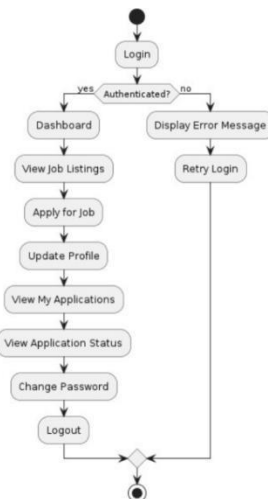


Fig no:5 Company Module Flowchart

3. Student Module

The Student module provides students with essential tools and resources to manage their placement journey effectively. This module includes features such as profile management, training material access, interview preparation resources, and company application submission. Students can update their profiles, explore training and preparation resources, and apply for job positions seamlessly. The user-friendly interface and strong backend support ensure that students can easily navigate the placement process, enhancing their engagement and success in securing job opportunities.



offers features such as training program oversight, access to student performance data, and tracking of student applications. HODs can monitor and manage training programs, evaluate student performance, and provide guidance to improve placement outcomes. The user-friendly interface and comprehensive backend functionalities enable HODs to make informed decisions and foster student success in the placement process.

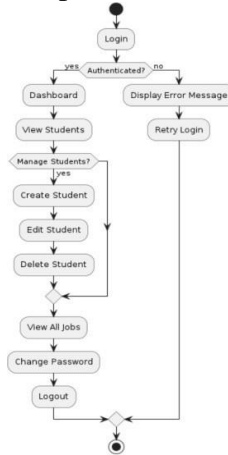


Fig no:6 HOD Module Flowchart

IV. RESULTS



Fig no:7 Home Page

The above screen showcases the home page of On-Campus Placement Management system. From this page the different users can click onto login and it will be redirected to the login page.

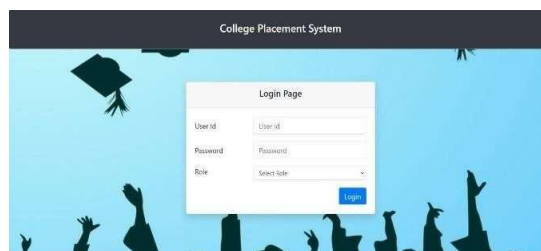


Fig no:8 Login Page

4. HOD Module

The HOD module equips Heads of Departments with tools and insights to support student placements effectively. This module

This is the login page where in all 4 modules, the admin, the HOD, the Company and the students can log into their respective account using their unique credentials.



Fig no:9 Admin Dashboard

This is the Admin Dashboard, which provides an overview of the number of students participating in placements, the number of HODs in the portal, the number of companies, and the number of students who have been successfully placed. The Admin has the capability to perform various actions, such as creating student profiles, adding HODs, managing company information, and creating new colleges. Additionally, the Admin can view the number of job openings, access detailed information about selected students, and change passwords. The dashboard ensures secure and efficient management of the placement process, streamlining administrative tasks and enhancing overall functionality.

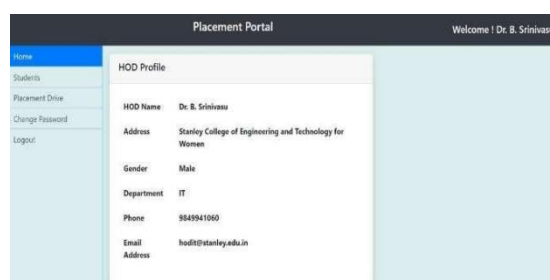


Fig no:10 HOD Dashboard

The above picture illustrates the HOD Dashboard after logging into the Placement Portal. The dashboard primarily provides viewing functionalities, allowing HODs to monitor the number of students participating in and being placed through the placement process, as well as the ongoing placement drives. Additionally, it offers options to change the password and logout, ensuring secure access and user management. This streamlined interface empowers HODs with critical insights while maintaining a user-friendly experience.

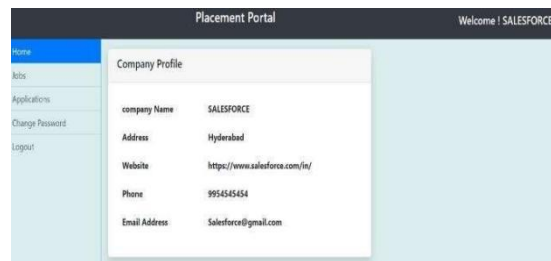


Fig no:11 Company Dashboard

This is the Company Dashboard accessible to each company upon logging into the Placement Portal with unique credentials. It prominently displays the Company Profile, ensuring personalized access and management capabilities. Companies can create job listings, review applications, and approve or reject applicants based on their specific requirements. Additionally, the dashboard offers functionalities for password management and secure logout, facilitating efficient operation and interaction within the placement ecosystem.



Fig no:12 Student Dashboard

This is the Student Dashboard displaying the Student Profile alongside their photo for personalized identification. Students can update their details, visible to HODs, Companies, and Admins. They can also view available job openings and apply directly through the portal. Another section allows them to track the status of their applications. Additional functionalities include password management and secure logout, enhancing user control and engagement within the placement system.

V. CONCLUSION

The On-Campus Recruitment Management System project successfully addresses the critical needs of streamlining and automating the placement process at our college. By integrating ReactJS for the front end, Spring Boot for the back end, and MySQL for the database, we have developed a robust and scalable solution tailored to the specific requirements of our institution. This system enhances the efficiency of various stakeholders involved in the placement process. The admin module allows the placement officer to manage the entire recruitment process seamlessly. The company module enables companies to post job openings and review applications effortlessly. The student module provides a user-friendly interface for students to apply for jobs and track their application status.

Lastly, the Head of Department (HOD) module gives department heads the tools to monitor and support their students' placement activities effectively. Throughout the development, we adhered to modern web development practices and focused on creating an intuitive user interface, secure data handling, and efficient performance. The integration of these technologies ensures that our system not only meets the current demands but is also adaptable for future enhancements. Our comprehensive approach to design and implementation has resulted in a system that significantly reduces the manual effort required in managing

placements, minimizes errors, and ensures data security. This project demonstrates the potential for improving administrative efficiency and enhancing student placement outcomes through the application of contemporary web technologies.

VI. ACKNOWLEDGEMENT

We would like to express our sincere gratitude to our project guide Mrs. M. Shalini and our HOD Dr. Srinivasu Badugu for their constant support and guidance during the research and writing of this paper.

References

- [1]Twinkle Panchal¹, Mayuresh Wadke², Prof. Aishwarya Sedamkar³, “Placement Management System” Volume. 09, Issue 04, p-ISSN: 2395-0072, Apr 2022.
- [2]K. Saran Raj¹, K. Keerthivasan², N. Kotteswaran³, Mrs. K. Sree Deve⁴ “Web-Based Placement Management System” Volume 2, Issue 5, ISSN(Online) 2581- 9429, June 2022.
- [3]Dr. M. Raja Roy¹, S.Satya Sri², B.Sai Ram³, SK.Muneer⁴, G.Midhilesh⁵, “Web Based Placement Analysis And Tracking System”, Vol-05, Issue-12, ISSN: 2454- 9150, Mar 2020.
- [4]Prof. Rupali Komatwar¹, Swapnil Kamble², Mihir Khedekar³, Kishor Walzade⁴, “Placement Support System”, Vol. 5, Issue 1, ISSN (Print) 2319 5940, January 2016.
- [5]Ajeena Sunny¹, Aneena Felix², Angelin Saji³, Christina Sebastian⁴, Praseetha V.M⁵, “Placement Management System for Campus Recruitment”, Vol.5, Issue 5, ISSN No: - 2456-2165, May 2020.
- [6]Farheen Taqi Rizvi¹, Naushin A.Khan², Saurabh Upadhyay³, Sonali Suryawanshi⁴, Shiburaj Pappu⁵, “Placement Management System”, Vol. 8, Issue 4, ISSN-23495162, April 2021.
- [7]Maryam Sayyed¹, Faiza Umatiya², Seemab Zehera³, Prof. Shiburaj Pappu⁴, “College Placement Management System”, Vol. 8, Issue 6, ISSN: 2320-2882, June 2020.
- [8]B.L.S. Priyanka¹, J. Divya², K. Navya Charitha³, M. Akhila, Ms. K. Chandrakala, “Training & Placement Management System”, Vol. 11, Issue 1, ISSN: 2278-4632, 2021.