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Placement Management System

Sasikala.P
Department of Computer Science
Sri Shakthi Institute of Engineering and Technology
Coimbatore, India
sasikala@siet.ac.in

Kanish R T
Department of Computer Science
Sri Shakthi Institute of Engineering and Technology
Coimbatore, India
kanishrt@srishakthi.ac.in

Manush Aditya S.M
Department of Computer Science
Sri Shakthi Institute of Engineering and Technology
Coimbatore, India
manushadityasm22cse@srishakthi.ac.in

Mouli B
Department of Computer Science
Sri Shakthi Institute of Engineering and Technology
Coimbatore,India
moulib22cse@srishakthi.ac.in

Pranesh.P
Department of Computer Science
Sri Shakthi Institute of Engineering and Technology
Coimbatore,India
praneshp22cse@srishakthi.ac.in

Abstract

The **Placement Management System (PMS)** is a web-based solution designed to streamline and digitize the campus recruitment process in educational institutions. Traditional manual placement processes are time-consuming, prone to human errors, and inefficient in handling large volumes of student and recruiter data. This project aims to overcome these challenges by providing a centralized platform that enables seamless interaction among students, placement officers, and recruiters.

Key features of the system include student registration, resume management, company profiling, job postings, eligibility checks, and interview scheduling. The system also integrates role-based access control to ensure data security and personalized user experiences. By automating core placement functions and offering real-time updates, the PMS enhances transparency, saves time, and improves placement outcomes.

Keywords—chatbot, user-friendly design, app.

I. INTRODUCTION

In the current educational landscape, campus placements play a crucial role in shaping students' careers. However, managing the placement process manually poses several challenges, including inefficient communication, data mismanagement, and lack of real-time updates. As the number of students and participating companies increases, the need for a robust and automated system becomes essential.

The Placement Management System (PMS) is designed to address these issues by offering a digital platform that simplifies and automates the end-to-end process.The system aims to act as a bridge between students, placement officers, and recruiting companies, providing a seamless flow of information and activities. It allows students to register, upload resumes, view job postings, and track their application status. Placement officers can manage company profiles, schedule interviews, and generate reports, while recruiters can post job openings and shortlist eligible candidates.

The development of such a system not only enhances operational efficiency but also increases transparency and fairness in the placement process. By integrating technologies such as web development, database management, and potentially artificial intelligence for job matching, the PMS ensures a future-ready solution for educational institutions.

This project reflects the growing need for digital transformation in campus operations and provides a scalable foundation for smarter placement management in the years to come.

II. LITERATURE REVIEW

Furthermore, future enhancements such as AI-based job matching and mobile application support can significantly enrich the user experience. The Placement Management System not only simplifies the work-flow for placement coordinators but also empowers students to actively engage with placement opportunities, thereby contributing to a more efficient and successful placement process.

2.1 Sharma, A., & Verma, R. (2020). "Automation of Campus Placement Process Using Web-Based Systems": This study presents a comprehensive analysis of automating the campus placement process through web technologies. It highlights how digital portals can reduce paperwork, eliminate redundancy, and enable real-time communication between students, placement officers, and recruiters. The system proposed in the paper supports registration, resume uploads, company listings, and scheduling. The research concludes that automation not only improves operational efficiency but also enhances transparency and student satisfaction.engagement. This work underpins the importance of incorporating AI in placement management to provide seamless support for users.

2.2 Patil, S., & Kulkarni, M. (2019). "Role-Based Access in Placement Portals for Secure Information Management": This paper focuses on the implementation of role-based access control (RBAC) in placement systems. The authors discuss how different user roles (admin, student, recruiter) should have controlled access to data for better security and workflow management. The study underlines the importance of ensuring privacy and data integrity in academic systems and is directly applicable to the development of secure Placement Management Systems.2.3 Chang, H., & Lee, D. (2021). "Destination Trend Analysis in Travel Apps Using Real-Time Data": This research examines the use of real-time data to showcase trending travel destinations in mobile applications. The study explores how integrating such features increases user interaction and helps travelers stay updated with popular destinations. By analyzing user behavior and preferences, the paper highlights the importance of dynamic content in travel apps. This aligns with TravelNest's approach to displaying trending destinations, ensuring users are presented with the most relevant and inspiring travel options.

2.3 Singh, K., & Gupta, D. (2021). "AI Integration in Placement Portals for Predictive Job Matching": This research explores the integration of artificial intelligence in PMS to predict the best company- student matches based on skills, academic performance, and previous placement trends. Using machine learning algorithms, the system suggests suitable job roles and companies to students, enhancing placement outcomes. The study supports the shift towards intelligent systems that reduce manual intervention and improve decision-making in campus placements.

III. PROPOSED SYSTEM

The proposed Placement Management System is a web based platform designed to automate and streamline the entire campus placement process, offering a centralized interface for students, placement officers, and recruiters. It allows students to register, upload resumes, view and apply for job postings, and track their placement status. Placement officers can manage student eligibility, post job opportunities, schedule interviews, and generate reports, while recruiters can post vacancies, shortlist candidates, and conduct interviews. The system ensures secure, role-based access and provides real-time updates to all users, improving communication, reducing paperwork, and increasing overall efficiency.

SYSTEM METHOLODY:

The development of the Placement Management System follows the Waterfall Model, a linear and sequential software development methodology that ensures each phase is completed before moving to the next. The process begins with Requirement Analysis, where the needs of students, placement officers, and recruiters are gathered. This is followed by the System Design phase, where the architecture, user interfaces, and database structure are planned. Next comes Implementation, where the system is developed using web technologies like HTML, CSS, JavaScript for the frontend, and Python (Django/Flask) for the backend, with MySQL or PostgreSQL for the database. After development, Testing is carried out to identify and fix any bugs or issues. Once tested, the system is Deployed and made available to users, followed by Maintenance to handle updates and improvements. This structured approach ensures a smooth, efficient, and error-free development cycle, aligning with academic and institutional goals.

V. EXPERIMENTAL RESULT

5.1.1 IMAGES

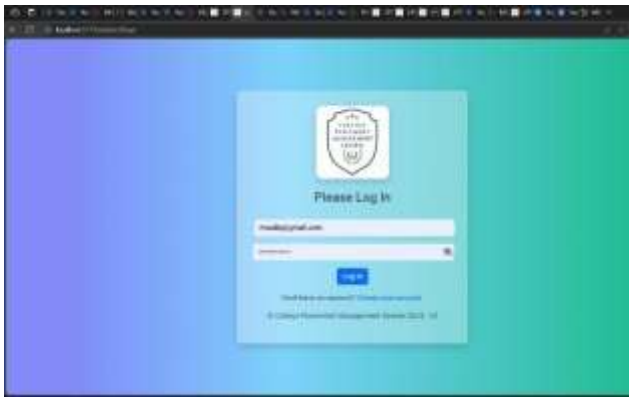

FIGURE 5.1 LOGIN PAGE

FIGURE 5.3 LIST PAGE

FIGURE 5.2 HOME PAGE

FIGURE 5.4 LOGIN DETAILS PAGE

CONCLUSION:

The **Placement Management System** provides a comprehensive solution to modernize and automate the campus recruitment process in educational institutions. By integrating key functionalities such as student registration, job application, recruiter interaction, and interview scheduling into a single platform, the system significantly reduces manual effort, enhances transparency, and improves coordination among stakeholders. It ensures data accuracy, speeds up communication, and offers real-time updates that empower students and placement officers alike. With the potential for future enhancements like AI-based job recommendations and mobile app integration, this system stands as a forward-thinking tool that not only meets current needs but also adapts to future placement challenges. Ultimately, the PMS promotes a more organized, efficient, and successful placement process, contributing to better career opportunities for students.

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