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Abstract—

A Web-based Placement Management System (WPMS) is a software application designed to facilitate and streamline the process of recruitment and placement of candidates in an organization by PHP, JavaScript, and MySQL. The system is built on a stack of popular web development technologies and is designed to provide a scalable and robust solution for managing job placement activities. The PHP programming language is used for server-side scripting, allowing for dynamic content generation and database interactions. JavaScript is used for client-side scripting, enabling the creation of responsive and interactive user interfaces. MySQL is used as the database management system, allowing for the efficient storage and retrieval of large amounts of data. The system provides a range of features, including job posting management, resume submission and management, candidate tracking, interview scheduling, and more. The key feature of this project is that it is one time registration enabled. The system's web-based nature means that it can be accessed from any device with an internet connection, making it easy for recruiters and hiring managers to manage recruitment activities remotely. Overall, the Web-Based Placement Management System is a powerful tool that can help organizations streamline their recruitment process and find the best talent available.

I. INTRODUCTION

The purpose of the project “**WEB BASED PLACEMENT MANAGEMENT SYSTEM**”, the manual work makes the process slow and other problems such as inconsistency and ambiguity on operations. In order to avoid this web-based placement management system is proposed, where the student information in the college with regard to placement is managed efficiently. It intends to help fast in fast access procedures in placement related activities and ensures to maintain the details of the student. Students logging should be able to upload their personal and educational information.

The key feature of this project is that it is one time registration enabled. The placement cell calls the companies to select their students for jobs via the campus interview. The placement cell allows the companies to view the student resumes in a selective manner. They can filter the student’s profile as per their requirement. The job details of the placed students will be provided by the administrator. The administrator plays an important role in our project. Our project provides the facility of maintaining the details of the students and gets the requested list of candidates for the company who would like to recruit the students based on given query .

II. LITERATURE REVIEW

The literature on web-based placement management systems underscores their transformative impact on recruitment processes within educational institutions. These systems streamline workflow, automating tasks like job postings, application tracking, and candidate evaluation, reducing manual effort and accelerating the recruitment cycle. Research highlights the user-friendly interfaces of such systems, facilitating seamless interactions for both employers and candidates, enhancing engagement and satisfaction. Moreover, the integration of robust features like resume parsing and interview scheduling optimizes efficiency, saving time and resources for institutions. Additionally, scholars emphasize the importance of data-driven insights provided by these systems, enabling institutions to analyze placement activities and outcomes, make informed decisions, and continuously improve their processes. Overall, the literature underscores the significant contributions of web-based placement management systems in revolutionizing placement processes, ensuring swift, transparent, and effective matching of talent with opportunities, ultimately benefiting both employers and job seekers.

III. METHODOLOGY

The development of the placement management system followed a structured iterative approach comprising several key stages. Initially, requirement gathering was conducted to discern stakeholder needs, informing the creation of a comprehensive feature list. Subsequently, the design phase ensued, where wireframes and prototypes were generated to visualize user interface and experience, facilitating iterative improvements. Transitioning to the development phase, agile methodologies were employed to incrementally build and refine the system, with rigorous testing conducted to rectify any identified issues. Finally, deployment on a cloud-based platform ensured scalability and accessibility, necessitating server setup, database configuration, and performance optimization measures. This systematic approach ensured alignment with stakeholder expectations, fostering a user-centric design ethos and facilitating seamless development and deployment processes. By embracing iterative development, agile methodologies, and cloud-based deployment, the placement management system was effectively tailored to meet evolving requirements, optimize performance, and enhance user accessibility, thereby contributing to its overall success and efficacy in streamlining placement processes within educational institutions.

IV. SYSTEM DESIGN

The system design of a web-based placement management system encompasses several crucial elements to ensure its effectiveness, usability, and scalability. Firstly, the user interface design focuses on creating an intuitive and user-friendly platform for both employers and candidates, incorporating features like job search, application submission, and resume upload while ensuring accessibility and responsiveness across various devices.

Secondly, database design involves establishing an efficient schema to store user profiles, job listings, applications, and other relevant data, with emphasis on maintaining data integrity and consistency through validation and relationship management.

Thirdly, the system architecture plays a pivotal role in determining the interaction between different components, including front-end, back-end, and database. It ensures scalability, reliability, and performance by selecting suitable technologies and infrastructure.

Security measures are paramount, encompassing authentication, authorization, and encryption techniques to safeguard user credentials and sensitive information, while also addressing common security threats like SQL injection and cross-site scripting.

Integration with external systems and APIs facilitates seamless interaction with third-party platforms and services, ensuring compatibility and interoperability while enhancing functionality.

Testing and quality assurance procedures are essential, involving rigorous testing and bug fixing to ensure system reliability and stability, along with documentation and training resources to support users in effectively utilizing the system and keeping documentation up to date to reflect system changes.

By considering these aspects during system design, a web-based placement management system can be effectively tailored to meet the needs of educational institutions, facilitating efficient placement processes, and enhancing overall effectiveness.

V. IMPLEMENTATION

The Model View Controller (MVC) software design pattern is widely used in building online applications, comprising three key components: the Model, View, and Controller. The Model handles data maintenance, the View displays data to users, and the Controller manages interactions between the Model and View layers. MVC promotes duty separation by isolating application logic from the user interface, enhancing maintainability and scalability. The Controller processes user requests, collaborates with the Model to prepare data, and passes it to the View for presentation. This abstraction ensures efficient data flow and facilitates modular development. Overall, MVC's structured approach to software design enables developers to create robust, maintainable, and scalable applications with clear separation of concerns.

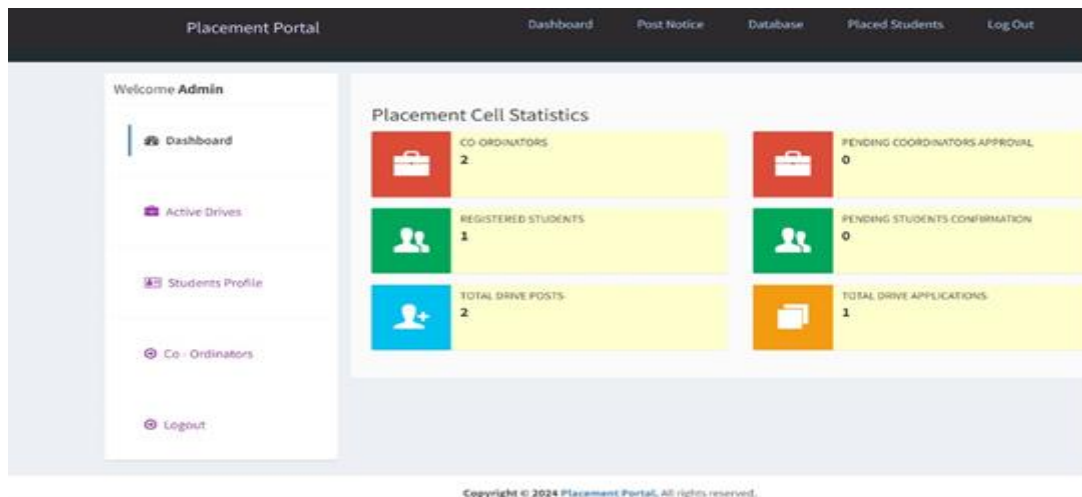
VI. RESULTS

The web-based placement management system serves as a comprehensive solution, effectively streamlining the entire recruitment process from job posting to candidate selection. By automating crucial tasks such as job listings, application tracking, and candidate evaluation, it significantly enhances the efficiency of the recruitment workflow. The system's user-friendly interface facilitates seamless interactions for both employers and candidates, fostering effective communication and engagement throughout the placement journey.

One of the key strengths of the system lies in its robust features, including resume parsing and interview scheduling, which optimize efficiency and reduce the manual workload for recruiters. These features not only expedite the recruitment process but also ensure a more accurate and standardized evaluation of candidates.

Moreover, the system's analytics tools provide valuable insights into placement activities and outcomes, enabling institutions to make data-driven decisions for continuous improvement. By analyzing trends and patterns, institutions can identify areas for enhancement and refine their recruitment strategies accordingly.

Overall, the web-based placement management system represents a revolutionary approach to placement management, facilitating swift, transparent, and effective matching of talent with opportunities. By streamlining processes, enhancing communication, and providing actionable insights, the system ultimately benefits both employers and job seekers alike, ensuring a more efficient and equitable recruitment experience for all stakeholders involved.



VII. CONCLUSION

In conclusion, we have seen the importance of a placement management system for engineering colleges. Such a system can streamline the placement process and make it more efficient for both students and recruiters. It can also provide valuable data insights that can help improve the overall placement experience.

Our placement management system has been designed with these goals in mind, and it offers a range of features that can benefit all stakeholders. From resume building to interview scheduling, our system provides a comprehensive solution for managing the placement process.

VII ACKNOWLEDGEMENT

We extend our heartfelt gratitude to all those who contributed to the completion of this research paper on job portal. First and foremost, we express our sincere appreciation to our advisors and mentors for their invaluable guidance, support, and encouragement throughout this journey.

We also extend our gratitude to the academic and technical communities for their continued efforts in advancing knowledge.

Finally, we express our deepest gratitude to our family members, friends, and loved ones for their unwavering support, understanding, and encouragement throughout this endeavor.

This research would not have been possible without the collective efforts and contributions of all those mentioned above. We are truly grateful for their assistance and encouragement.

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