Summit Recruitment

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***Abstract*—Summit Company is poised to elevate its talent a cquisition process by developing a robust and efficient job and internship application platform. This platform will not only simplif y the creation of job announcements and internships with detailed, transparent job descriptions but will also provide seamless tracking of company operations . By integrating smart automation and real-time data insights, the platform will enhance recruitment workflows, improve candidate engagement, and offer a comprehensive view of hiring activities, empowering Summit Company to attract top talent while maintaining operational efficiency.**

***Index Terms*—Summit Computer's recruitment and internship system, managing applicant data, and scheduling exams.**

I. Introduction

In today's digital era, businesses increasingly rely on specialized recruitment platforms to streamline hiring processes and maintain competitive talent acquisition strategies. Currently, Summit Computer advertises job openings through its Facebook page and various third-party job application websites. While effective to some extent, these methods lack the centralization and tailored functionality that a dedicated recruitment platform can provide. Without its own recruitment website, Summit Computer faces challenges in efficiently managing applicant data, coordinating the selection process, and ensuring a smooth experience for both applicants and administrators. To address these gaps, our team is developing a recruitment and internship application website specifically tailored for Summit Computer. This platform is designed to serve as a centralized hub for job announcements, applicant data entry, exam scheduling, and result announcements. Additionally, it incorporates features such as document submission for successful candidates, an admin task checklist system to streamline administrative workflows, and a robust employee data storage system. The primary objective of this project is to create a website that not only facilitates easier and more organized access to recruitment information but also improves operational efficiency for the company. By introducing automated processes and a user-friendly interface, the platform will enhance the overall experience for applicants and provide administrators

II. Literature Review

A. Maintaining the Integrity of the Specifications

Node.js: Server-Side JavaScript Runtime Environment Node.js is a runtime environment for server-side development using JavaScript. It was created by Ryan Dahl in 2009 and is supported by the OpenJS Foundation. Node.js is well-suited for real-time applications and high-load systems due to its asynchronous event-driven architecture.

- Asynchronous Structure and Functionality: Node.js utilizes Non-blocking I/O and a single-threaded event loop, enabling it to process multiple requests simultaneously without waiting for previous ones to complete. This makes it ideal for real-time applications, such as online chat and data streaming.
- Support for Various Platforms: Node.js can seamlessly integrate with multiple database platforms, such as MongoDB, PostgreSQL, Redis, and MySQL, allowing it to connect with diverse database systems with ease.
- Industry Adoption: Large corporations like Netflix, LinkedIn, and PayPal utilize Node.js due to its performance in handling large user volumes and fast response times.

MySQL: Relational Database Management System (RDBMS) introduced by Oracle Corporation in 1995. It is widely used for data storage and management due to its reliability, security, and flexibility.

- Relational Database Design: MySQL uses a relational structure by storing data in tables and establishing relationships between tables, making it highly effective for managing large-scale data.
- Support for ACID Compliance and Transactions: MySQL adheres to ACID compliance, ensuring high data integrity, especially for applications that require data accuracy

in every transaction, such as financial or e-commerce applications.

- Industry Adoption: MySQL is commonly used in large organizations like Facebook, Twitter, and YouTube and serves as a foundational database for large-scale web applications due to its ability to handle massive data volumes effectively.

Evolution of HR Systems from Past to Present.The development of HR systems can be divided into several eras, starting from the early days that relied on paper and documentation to the current age where software and digital technologies play a significant role. The use of programs like Microsoft Excel and specialized systems for managing employee data in organizations has become widespread. This includes the adoption of HRIS (Human Resource Information System) and HRMS (Human Resource Management System), which focus on comprehensive data collection for all employees. These systems make data management convenient, fast, and more efficient, allowing for comprehensive data analysis.

III. DESIGN SOLUTION

A. Software Architecture

In the development of the system, React.js and a Node.js server were utilized to create APIs that interact with the MySQL database. This approach ensures

efficient data retrieval, secure transactions, and seamless communication between the frontend and backend components of the recruitment platform.

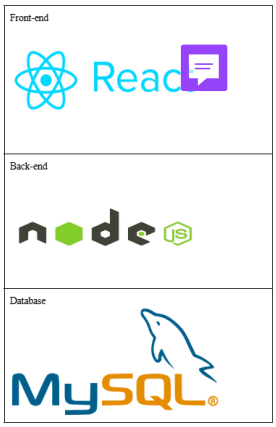

Fig. 1. Summit Computer's recruitment platform architecture

Figure 1 shows the architecture of Summit Computer's recruitment platform. It demonstrates the integration of React.js as the frontend framework to provide a seamless user experience. This architecture emphasizes dynamic interactions, responsive design, and efficient rendering of web pages.

On the backend, Node.js ensures high performance with its event-driven, non-blocking I/O model. MySQL serves as the relational database management system, providing secure and reliable data storage for user information, job postings, and application statuses.

B. System Design

A use case diagram for the Summit Recruitment platform is shown in Figure 2, which depicts a comprehensive system that simplifies the recruitment process for both recruiters and candidates. The diagram illustrates the interactions between the two main players, the recruiter and the candidate, highlighting the functionalities involved within the system. The recruiter posts a job opening, after the applicant applies and if they meet the criteria and submit additional documentation, the recruiter adds the information to the company.

Fig. 2. Responsive platform use case diagram

IV. EFFICIENCY AND COST

- **Efficiency:** The system makes processes like posting job openings, scheduling exams, and managing applications much faster and smoother, reducing the need for manual work and improving overall workflow.
- **Cost:** By automating tasks and minimizing mistakes, the system helps cut down on extra expenses, making the whole process more affordable for the company.

V. RECRUITMENT MANAGEMENT SYSTEM

A. Recruiter

- Job announcement/internship recruitment
- Check applicants/select people who meet the criteria
- Schedule a written exam/interview date (send email to applicants)
- Announcement of exam results (email to applicants)
- Checklist of things the admin must do (in case the applicant passes, such as making an employee card/email/VPN/Notebook sheet)
- Viewing employee information (entering work/ Internship/History Information)

B. Applicant

- Access job/internship announcement information
- Apply for a job/internship via the company website
- Follow the status of job/internship applications
- Fill in additional information (in case of job application)

VI. CONCLUTION

The recruitment platform developed for Summit Computer will modernize and enhance the company's hiring process. By offering a well-structured and user-friendly system, the platform will make job and internship postings clear and transparent, encouraging better candidate engagement and reducing initial screening times.

Key features such as real-time application status tracking and email notifications for updates will significantly improve communication and organizational efficiency.

Built with advanced technologies like Node.js for server-side development and MySQL for secure and reliable data storage, the platform ensures fast performance, scalability, and robust security measures.

This system will enable Summit Computer to optimize recruitment processes, enhance the applicant experience, and attract talented individuals. Focusing on efficiency, data privacy, and operational reliability, the platform will become a vital part of the company's growth strategy, driving innovation and success in talent acquisition.

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