Training and Placement Management System

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Abstract— The placement portal improves the placement process by reducing the amount of manual work in its operations while offering students the chance to leverage group intelligence to improve selection probabilities. Data security and the reduction in manual labour are the primary objectives of the placement portal. Student credentials are generated, corporate and a job specific are given to students, and student experience continues to exist throughout the placement process. The placement platform offers modules including Admin and Student. The admin creates the company details. It supervises the placement procedure for every job ad on its own. The steps of creating student credentials, company profiles, handling job postings, login verification, emailing students, creating a placement list, and generating placement statistics are all included. Students talk about their placement procedure experiences. Students address their placement procedure experiences. The website was developed utilizing the MERN Stack (MongoDB, Express, ReactJS, and NodeJS) and the MVC Architecture

Keywords — Placement portal, Automation, Data security, Efficiency, Streamline, Student credentials, Job postings, Email communication, Group intelligence, Selection probabilities, MVC Architecture, MERN Stack, Student experiences, Admin module, Company profiles, Login verification, Placement statistics, Recruitment

INTRODUCTION

Training & Placement management system primary goal is to establish a web connection for the training and placement department. With the right login details, students can access the system, which consists of a web application, from anywhere in the institute. The college's TPO may manage student data regarding placement via this web page. Information uploaded by the students may also be reviewed or accessed by the placement officer too. It provides several modules, including ones for TPOs, T&P Coordinators, and

students. TPO can handle the student profile details with ease by utilizing this module. TPO has provided all of the authority in this webpage. TPO has the ability to register coordinators and students depending on department. Students can upload their resumes, personal information, and academic records—all necessary for college placement—through this web page. The training and placement coordinator can upload events in the T&P Coordinator module. Students can explore and analyze the placement options offered by job companies by using the information about them that is available on our training and placement webpage. In addition, it features databases, which are a traditional method of organizing student data. Offering students training and opportunities for employment is the aim of the institute's training and placement cell. Through the conduct of multiple courses on communication skills and other soft skills, our training and placement web portal offers students sufficient opportunity to develop their unique personalities.

II. PROBLEM STATEMENT

The present system does every task by manually. The administrator needs to study every document stored for many years in order to obtain basic information. This is really time-consuming and tiresome. When the number of users rises, this process becomes increasingly challenging. The current system has numerous shortcomings. Errors are quite likely with manual training and placement because all work is done by human interaction at the college. The system takes a long time because of the maximum interface between a student and a TPO. There may have been missed opportunities if the students are unaware of the Training and Placement program. The Access sheets needed optimization. For example, if we desired students with a 65% aggregate, we would additionally select students with 70% and 75% aggregate, but the desired outcome would only be students with a 65% aggregate.

There was a lot of miscommunications at the last minute since the Training and Placement department's current system was unable to obtain acknowledgement from the students who attended a specific event. The department of Training and Placement and students interact through fewer channels. The former pupils were not included in any records. There is a decrease in communication between the Training and Placement department and former or current students.

III. RELATED WORK

A system enabling interactive training and placement that automates the process and offers numerous chances to increase the selection ratio. This system notifies students of job opportunities in a variety of sectors, allows them to apply to those postings, invites employers to consider hiring college graduates, and keeps track of their academic progress. It has the ability to produce a list of students who have been shortlisted based on various criteria and HR requirements. [1] A final-year management system that provides all of the information about the college's students, permitting us to solve a number of problems including organizing thousands of student records, locating eligible students among those thousands of records for hiring purposes, and compiling a list of companies that have visited the college to hire students. [2] A college talent placement system is created to automate the registration procedure and provide a list of qualified students for hiring. The placement director can view and access the qualified students' resumes when they register through the portal and update their personal information. The schedule is set by the Placement Officer in accordance with the institution's operations. At last, the student will be able to view the recruiting status and examination data. [3] A system with a modular architecture that offers numerous features for carrying out placement-related tasks. We can add or delete modules from this modular system in the future in accordance with the TPO requirements. [4] Examining the strengths and weaknesses of each student in order to effectively decide on the training and placement initiatives of the institution of higher learning based on the query-specific reports submitted by the students for the purpose of recruiting by different employers. In order to examine the data and make informed judgments based on our comprehension of it, we will be applying several data mining methods. [5] A web-based placement management system that enables students to register once, cutting down on paperwork. The placement officer maintains the student placement information in an application that the organization's authorities can access with the appropriate student login credentials. [6]

IV. PROPOSED SYSTEM

Applicants can add and retrieve information quickly and easily with the help of the Training and Placement system. All of the drawbacks of the current system are eliminated by the totally computerized nature of the proposed system. The four primary user categories are Companies, Forum, Students, and Admin. The master user, or administrator, carries out several tasks such as authorization and verification. Students can be classified into two categories: current and alumni. Information can be observed and updated at any time by current students. Students' cv are modifiable. They must publish and continuously update their scanned documents, and they are able to offer video resumes. Students have access to pertinent content that has been posted internet. The data from the

previous three years will be kept for alumni. Alumni will receive automatic emails and messages to stay in touch.

Administrators have two distinct user types, such as Department Staff and TPO Staff. The student's work may be edited with permission from the TPO. TPO can also create a list of eligible students and search for acceptable students based on the company's criteria. Additionally, TPO has the ability to routinely email students who are eligible. Via the forum module, TPO & the student can communicate.

They use an automated email system for providing the student the approval and confirmation. They have access to the data that the student has provided, including contact information, academic standing, and extracurricular and other information. TPO may provide students examinations for practice and mock interviews. They post study-related information on this website.
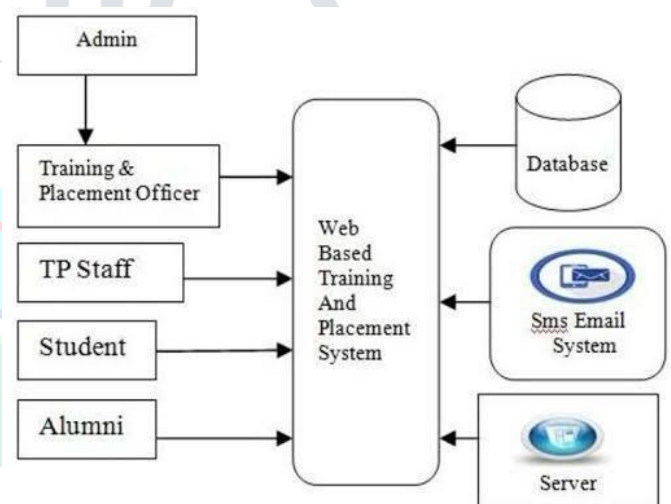
TPO can also offer education aimed at improving written and soft skills, in addition to information about possibilities for internships. To qualify for the companies to receive information such as their website, contact information, placement papers, and job openings, they must first register. Companies can update their own contact details to help keep them up to date. Additionally, they have the ability to change company and job opening details, resulting in far more up-to-date and comprehensive information. Employers can see all of the students who have applied for positions, together with details about their application time, available time, cover letters, CVs that are attached, papers, etc.

V. METHODOLOGY

To develop and implement use a website placement management system. Both the educational institutions and the students gain as well as are positively impacted by high-quality placements. The educational institution finds it difficult and laborious to gather information from every student during this entire process. They often gather data by hand. It takes a great deal of effort and time. With the correct login information, anyone at the college can access the placement management system via the web. The college's placement officer or supervisor can utilize this system as an

application to handle student data regarding placement. The student has the ability to upload their data.
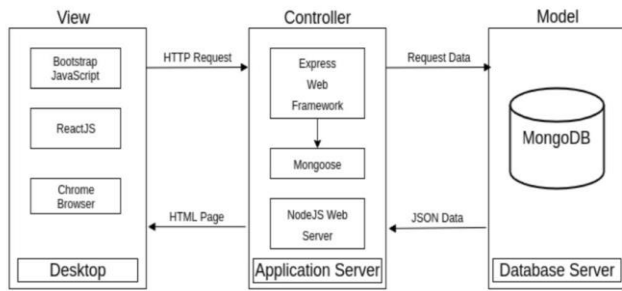
The suggested application system, created with MERN Stack and MVC Architecture, is shown in Figure 1. A model is a representation of the format, restrictions, and organization of data. It is the application's database, which is built with MongoDB. View is what the user is shown. Views make use of the Model to display data in the way that the user desires. They are made up of both dynamic and static pages that are given to the user upon request. Page created with React JS. The observer receives suitable responses from the controller after it has control over the user's requests. A controller will handle the request that is generated when a user interacts with the Page. In response, the controller renders the appropriate view based on the model data. Express, MongoDB, and Node.js are used in its implementation. Various account types will be accessible through the system for various user types, including administrators and students. Every student has a profile built with the portal login credentials. The student data will be stored securely by the system, which employs MongoDB for database management using Mongoose. Using the student's name and actual email address, the administrator will be able to create the student credentials. Additionally, every applicant will receive an email with a URL to access the portal that was sent by the administrator. The department can better monitor its college students according to this approach, which also prevents students from outside the college from using the portal. The student will have the option to enter their information and attach their resumes. Additionally, students can change their profile. The administrator can post

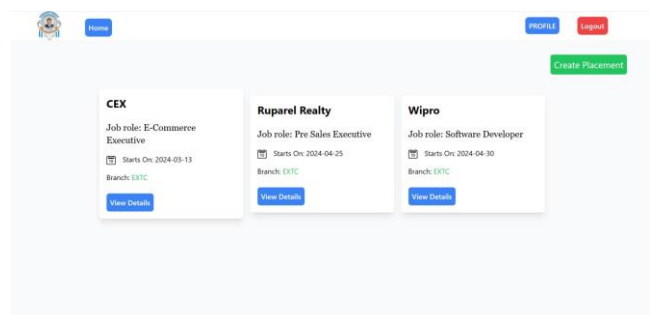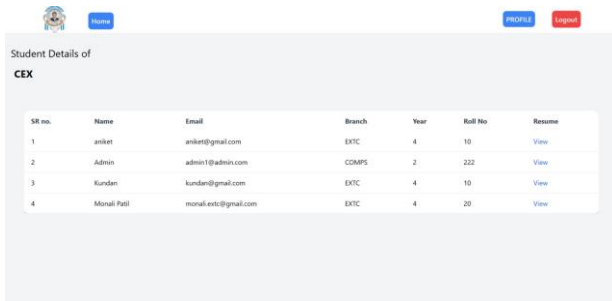opportunities and create company information. Administrators have the ability to access enrolled students as well as student experiences provided for a specific company. The administrator can see the listed students and a specific student's profile along with their resume.
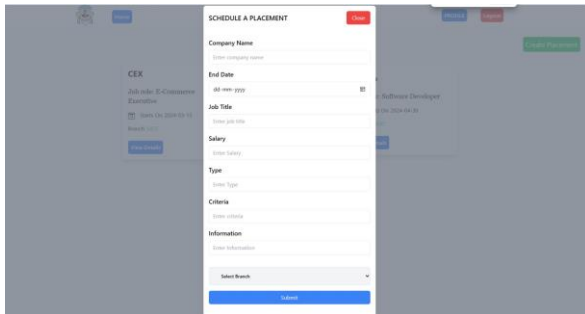
VII. Implementation and results

1. HOME PAGE

2. LOGIC PAGE

3. STUDENT PORTAL (APPLYING)

4. ADMIN PORTAL (CREATING PLACEMENT)

5. STUDENT DETAILS

6. SHEDULE PLACEMENT

VIII. CONCLUSION

The methodology of the online training and placement management system was addressed in this study. The college recruitment system includes three logins: business, admin, and student. Benefits for students, campus recruitment by various companies, and university placement professionals are all part of the scheme. It is recommended that the current manual recruitment system be replaced with a completely automated one that enables flexible and effortless management of various activities. The tasks that the human resources department must complete both before and after the student selection process are handled automatically using this system. This technique is beneficial in a number of ways, including the time and money saved when choosing businesses and students. Companies can request qualified students using this set of concepts, which are utilized to construct a framework that facilitates communication between students and companies. Any internship program that offers universities on-campus internships can employ this technique. Additionally, it might be applied especially to a hiring firm.

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