

Placement Path: A Placement Management Portal

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Abstract – We kept (and keep) track of everything with a specific process that adapted to the use of the internet over time → This transformed how we preserved and accessed information, particularly for college placements. In this project, A web based placement management system which will help both the students and the placement officer in simplifying the recruitment procedure. This helps placement officers quickly publish and handle job openings and applications all in one form, whilst students can search for relevant jobs at ease as well as apply to them directly. The technology also enhances the connectivity between students and the Training and Placement Cell by offering regular updates on status of their applications along with information on upcoming interviews etc. With a single account per student and a custom dashboard to monitor placement status, so much paperwork has been eliminated and the administrative burden reduced significantly. Student achievement opportunities.

By automating conventional manual processes, this placement site hopes to provide a more structured and effective the recruitment atmosphere benefits both students, recruiters, and placement officers. This initiative not only improves the efficiency of the placement process, but it also creates more opportunities for student achievement.

Keywords: Placement, Student Management, Student Recruitment Automation, Job posting System, TPO, companies

1. INTRODUCTION

In the technologically advanced world of today, educational institutions are depending more and more on digital technologies to handle crucial procedures. The Placement Management technology, also known as the Placement Portal, is one such technology that makes campus placements easier for placement officers, instructors, and students. This system meets the need for systematic, effective processing of student data, from academic records to tracking employment applications, in light of the increasing significance of a smooth placement experience. Placement data are typically manually maintained in many colleges using spreadsheets or other simple tools. This frequently leads to problems, such as delayed alerts regarding recruitment events or data entry issues. By centralizing student profiles, company requirements, job postings, and placement announcements, a web-based placement portal streamlines this procedure. Students can sign up, keep up with their profiles, and apply for employment that fit their qualifications, roles, administrators—mostly the Placement Officer—can effectively communicate updates, approve registrations, and monitor student information. [1]

By providing recruiters with instant access to lists of suitable candidates and pertinent documentation, the placement site also helps institutions forge closer ties with businesses. The Placement Management System facilitates an organized, cooperative atmosphere where students, professors, and businesses can concentrate on what really matters: career advancement and student success by automating chores and cutting down on redundancy. This development not only improves institutional effectiveness but also helps students safely and confidently navigate placement options. [2] In addition to providing faculty and officers with the information and reports they want, this site seeks to facilitate efficient communication between students and training and placement officers by providing a streamlined platform for organizing internship and job applications.

2. LITERATURE REVIEW

Main Objective: Our study would provide an all-inclusive campus placement portal with specific login access for admins and students. As this website aims at improving college hiring practice to ease the convenience, productivity, and accessibility of placements for all users, it has made efforts to improve that. The current placement management systems depend on the human procedure, meaning they are highly inefficient and prone to a high error rate. This often leads to problems in maintaining the latest information about the students and also in providing immediate updates on job opportunities. Due to this, many students miss potential placements because they are not receiving crucial updates on time. Web-based technologies can simplify these processes, reduce human effort, and make data accessible and accurate by providing a consolidated web interface for dealing with student information. This methodology helps in better communication between placement officers and the students, thereby helping them to track their academic and professional career.[3]

Education institutions have greatly improved their linkage with potential employment opportunities for students by shifting from manual to computer-based training and placement systems. Traditional methods involved labor-intensive data entry that could not be managed by placement officials; at the same time, it was impossible for the information to reach students on time. The user-friendly interfaces of modern web-based platforms made updating in real-time and proper communication possible between students, recruiters, and administrators. All aspects considered, technology incorporation of placement

procedures is a move which has streamlined all the procedures and that each party is gaining.[4]

The campus placement portal development project derived its inspiration from research report conducted by 2020 Geetanjali Kori, Hitesh Kumawat, Jigyesh Rathod, Mayank Jeevtani, Murtaza Anis, and Akshita Sharma. Specifically, research report assisted us to design the tools that make data on students data of students easy to view, manage and access the same in the CSV format. In addition, their aim at the user-friendly interface with efficient management are guiding us to reach our objective that is the upliftment of ease and effectiveness of job placement. [5]

The campus placement portal system by Angeesh Tyagi, Pranjul Agrawal, Prankur Srivastav, Pulkit Sagar, and Abha Sharma offers a design for the improvement of usability among students and institutions. Its user-friendly features come with ease of access as well as an effective management system for various placement activities. For this purpose, it requires separate logins for the administrator and the students. Students can attend placement events, apply for jobs, and see corporate visits. This system has been developed using JavaScript, HTML, CSS, React, Node.js, Flask, and MongoDB, in mind: accessibility and UX that made the traditional campus hiring process better through a focus on usability and aesthetic appeal [6].

Kapil Wagh, Dnyaneshwari Tilekar, Bramhesh Chaugule, and Pradip Gorde, 2023, pointed out automation of campus placement management process as the means of reducing the scope of errors in the flow which guides towards better communication between TPOs and students. Their Campus Placement Portal makes tasks of managing job applications, events registrations, and updates even simpler; hence job search for students becomes much easier and more streamlined than for universities. The portal enhances the accuracy and efficiency of the entire placement process because they make the whole process automatic.[7]

In "College Placement Portal System" proposed in 2019, Varsha Mali and colleagues presented a fully wholesome campus placement portal to enhance the level of confidence and preparedness amongst its students to face the workforce. The most important features of this portal are its FAQs and explicit rules. These are proposed for helping the students to cope with their job applications, to understand the interview process and meet the expectations of employers. These tools are helpful guides in the process that makes the students more confident generally, and they all have a better experience. The portal aims to give the students organized resources, which might allow them to browse and avail placement opportunities systematically.[8]

Backend (Application Server): The backend serves as the system's core, processing requests, managing data flow, and ensuring seamless interactions between the frontend and the database. Built on Node.js, this layer oversees business logic and functionality.

Stored Data Types: Student Data: Profiles, academic records, and application history are maintained here. Drive Details: Job descriptions, eligibility requirements, and outcomes are stored for easy access. Application Data:

Contains individual applications, status updates, and company feedback.

3. PROPOSED SYSTEM

Situation Portal is engineered to move information in a safer and more efficient manner; providing an easy-to-use interface for students, the faculty, and the placement officer while implementing user privacy. The framework consists of three basic levels, the Frontend (Client Interface), Backend (Application Server) and Database Layer. The different layers are designed to ensure that the portal gets utilized to its full potential. Frontend: Also referred to as the client interface, it provides a visual layer that frontend clients see. Responsive — it is built with web technologies such as HTML, CSS, and JavaScript using frameworks like Respond to provide a simple & free experience. Key Takeaways: User Authentication Which one are you? For more individualized interactions, administrators, instructors, and students can all have custom login access. Student Dashboard: Students can monitor application statuses in real time, update their profiles, and view job drives. Admin Dashboard: Placement managers can monitor applications, post fresh job drives, and reports.

Profile management: Facilitate students' ability to keep their profiles current by creating and editing profiles. Job Drive Management: Manage applicant queue for processing, eligibility checks and publishing job drives. Application Tracking: Keeps track of the applications submitted by students with live status report. Analytics and reporting: Education and monitoring the progress made through statistics reports.

All that the database layer stores is essential data within secure storage, starting from a student profile and job drive details all the way to the application outcomes and reports. This leaves the system agile and highly scalable in terms of data storage through the use of MongoDB.

4. METHODOLOGIES:

The Training and Placement Portal is structured into a range of essential modules that are designed specifically to cater to specific needs and functionalities of the system. Using the Student Module, students can manage their application, update their profile and can connect directly with job drives as it acts as their front end. This module enables the students to see a dashboard of all open employment drives, application history, and customized recommendations of drives based on requirements. Updating of their profiles is easy with some enhanced application capacities, application to job drives, and tracking the status of their applications. It connects with the Application Module for easier submission and follow-up on applications, coordinating with the Drive Module in posting available job drives.. Admin Module, designed primarily for placement officers, provides administrators with all the tools they need to manage student applications, run employment drives, and generate informative reports.

Besides a detailed view of placement activities, the admin dashboard provides options to manage job drives and users.

Administrators can track student applications, create and edit job drives, and utilize data-driven analytics in order to discern important information about placement trends. The module includes Drive Module for effective job management and Application Module for tracking student applications and reporting. It also should be mentioned that the Faculty Module-the central supporting feature of the portal-often represents significant benefits to faculty members, since it allows access for them to the support given to students' profiles, placement advices, and all-important data regarding placement.

The student profile which the teachers can maintain, especially in the case of new students, shall ensure that relevant and up-to-date information on a specific student is available and accurate. They will also have access to consolidated placement data and statistics to be able to advise their students better. The module communicates with the Student Module as well as the Application Module to update these profiles and follow applications

The Drive Module is at the heart of the system: This module has tracked all information concerning job drives submitted by different firms. Such vital information as the firm's names, job titles, descriptions, eligibility requirements, and status of each drive all come in this module. This can be used by students to know what is required for each application and by the administrators for posting and updating. The Drive Module works with the Student and Application Modules to show pertinent drives and to verify student eligibility.

Finally, the Application Module deals with student employment application services; it tracks every application from submission right through to the end. Students can access the module in order to obtain information on what is happening about their applications, since the module traces the follow-up status of every application, whether pending, accepted, or rejected. It also enables administrators and business representatives to comment and update the status of a given application. Other than giving administrators much-needed information about the trends of applications and placement success rates, the Application Module is critical in linking student activities with job drives.

4.FUTURE IMPLEMENTATIONS:

We see a lot of potential for improving our campus placement portal, and we might incorporate the following features in later stages:

- Transitioning to cloud environment for better and faster storing of data.
- Addition of in-portal mock test setup environment where student can give mock test of respective companies.

- Adding a mock coding test platform where students can practice their coding skills.
- A feedback and tips dashboard might work as a guide for juniors by seniors for companies.
- Adding video call/sharing feature for taking up virtual interviews.
- Use of AI for resume building.
- Addition of more visual appeal in reports and analytics.

We believe these updates will create a more effective and user-friendly experience for everyone.

6.CONCLUSION

In this context, the Placement Management System proposed is going to automate and simplify most of the procedures for recruiting agents, TPOs, as well as students in order to maximize the campus placement process. This digital first replaces many tasks manually operated by obsolete, prone to error, and inefficient techniques. While automating the eligibility check, the technology aids in bettering access and accuracy of data with detailed reports generation and real-time alerting. Students will be provided with a specially designed portal which will enable them to maintain their profiles easily, view job postings based on their skills and monitor the status of applications submitted by them. Simultaneously, TPOs will be equipped with proper tools to track placements, manage student data and provide insights that will aid decision-making. This will not only make it easier to the placement process, but also sustainable, as it reduced paper usage and encouraged a consolidated, environmentally friendly system of digital records. In the end, this solution meets the ever-growing demand for campus hiring's digital transformation while making the experience with all parties involved more efficient and convenient.

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