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College Placement Management System

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***Abstract*— The College Placement System (CPS) is a web-based platform designed to streamline campus recruitment. Traditional placement processes rely on manual data management, leading to inefficiencies and errors. This system, developed using Python and Django, offers a centralized solution for student registration, job postings, resume uploads, and event management. CPS provides role-based access, ensuring seamless interaction between students, recruiters, and placement officers. Automation enhances efficiency, reducing manual work while improving transparency and security**.

I. INTRODUCTION

The placement process in colleges is often inefficient due to reliance on spreadsheets and paper-based records. The College Placement System automates student data handling, job applications, and event management, improving communication and reducing errors. The system is developed using Django, a robust web framework, ensuring scalability and security. This research discusses the system's methodology, implementation, and results.

II. METHODOLOGY

1. Requirement Analysis

A detailed study identified the needs of students, placement officers, and recruiters. The system requirements included job postings, student profile management, resume evaluation, and real-time notifications.

2. System Design:

Frontend: HTML, CSS, JavaScript
Backend: Django (Python)
Database: SQLite-3
Authentication: Django's built in authentication

3. Implementation

Key modules developed:
Student Portal: Profile creation, resume upload, resume analysis.
Admin Module: Job postings, student shortlisting, interview scheduling
General View: Placement statistics, student tracking, and report generation.

4. Testing & Deployment

Unit Testing: Django test framework for module validation
Integration Testing: Ensuring smooth interaction between frontend, backend, and database
User Acceptance Testing (UAT): Feedback-driven refinements before deployment

The system was deployed on a cloud server for scalability and remote access

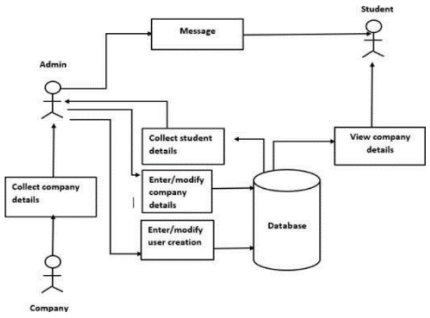

Fig.1 System architecture

The above figure shows the system architecture which Includes the flow structure of college placement system.

- The Campus Placement System is a comprehensive web-based platform aimed at streamlining and automating the campus recruitment process as shown in fig 2.

- It is designed to facilitate seamless interaction between students, recruiters, and administrators by providing a structured and efficient system for job registration, event management, and candidate evaluation.
- The platform features a secure user authentication system with role-based access, ensuring that students, companies, and administrators have distinct privileges. Students can create and manage their profiles, upload resumes, and apply for job openings based on eligibility criteria.
- They can also register for placement-related events and receive real-time updates on their applications.
- Recruiters can register their companies, post job openings with specific eligibility requirements, and review student applications.
- The system allows them to access student profiles, shortlist candidates, and communicate with them effectively.
- Additionally, the system integrates an automated email notification feature, ensuring that users receive timely alerts about account activation, job application status, and event participation confirmations.

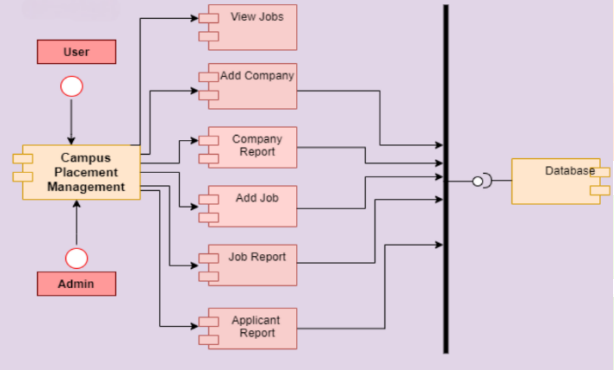

Fig.2 Student job registration

III. RESULTS AND DISCUSSION

The Campus Placement System developed in this project is designed to address the specific needs of educational institutions in managing the recruitment process efficiently. Compared to other popular platforms like Turing, Naukri, and Code Signal, this system offers a more holistic approach that combines multiple functionalities such as student registration, job application management, event management, and admin controls. Turing is primarily known for its robust online assessment capabilities, providing a comprehensive solution for conducting online tests and evaluating candidates' skills, particularly for technical roles. However, while Turing excels in assessments, it lacks a comprehensive event management module and is primarily focused on recruitment tracking and test evaluations, making it less suitable for institutions looking for a complete campus placement management tool. In contrast, Naukri, a widely recognized job portal, allows students to upload resumes and apply for job listings. Although it offers a large employer database, Naukri focuses mainly on job applications and resume management, with minimal features for tracking placements or organizing placement drives.

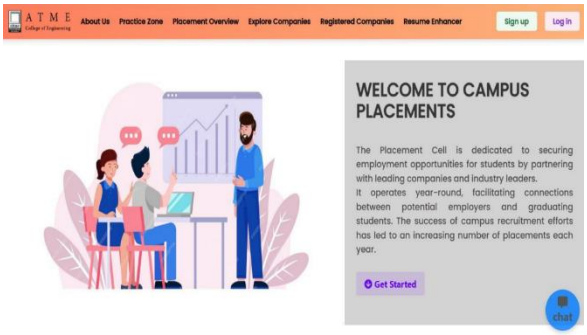

Fig.3 Testing in home page

The fig.3 shows the home page where a student, admin can visit the following sites contains about us, practice zone, placement overview, explore company, register company and resume analysis.

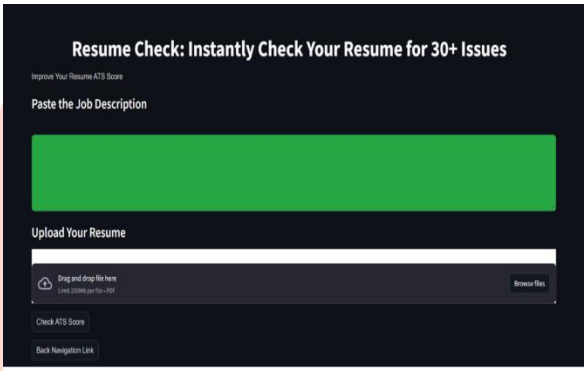

Fig.4 Resume analysis

The Resume analysis is implemented to analyze the resume and give the appropriate suitable company name which matches the student resume. Student will upload the resume and should paste the company job description now by using string matching algorithm and I it will calculate the AT score. If the score is more than 70 that means your resume is well suit for that job else, it will reflect what changes to be made to suit the job description.

IV. CONCLUSION

College Placement System has the potential for further enhancements, such as integrating AI for improved job matching, developing a mobile version for easier access, and incorporating advanced data analytics tools. These advancements would not only increase the system's efficiency but also improve the placement outcomes for students and institutions. In conclusion, the College Placement System is a forward-thinking solution that not only meets the current needs of educational institutions but is

also adaptable to future trends in placement management, ensuring it remains a valuable tool for years to come.

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