



Research Paper**PLACEMENT TRACKER DASHBOARD (STUDENT & ADMIN)**

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ABSTRACT

A web-based tool called the Placement Tracker Dashboard was created to help administrators, organizations, and students with the placement process by making it easier and more efficient. It provides secure login and registration capability, guaranteeing that only authenticated users can access system functionalities. Through an easy-to-use interface, students may build profiles, apply for placement opportunities, and monitor the status of their applications. Companies can effectively publish job openings, evaluate applications, and create a shortlist of prospects. In order to ensure safe and scalable storage of student and organization data, the system integrates a centralized database utilizing MongoDB Atlas. While the organization dashboard makes it easier to post jobs and manage candidates, the student dashboard enables real-time tracking of applications. Administrators have the ability to create reports, keep an eye on placement operations generally, and guarantee selection process openness.

KEYWORDS: web-based application, student placement management, secure login, user authentication

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I. INTRODUCTION

The management of campus placements has a direct impact on career outcomes, overall student satisfaction, and the institution's reputation in contemporary educational institutions, especially in engineering and professional colleges. It is crucial that the process be open, well-structured, and free of needless delays when students take part in placement activities, such as applying for a company drive, going to an interview, or waiting for results. Regretfully, a lot of organizations continue to use manual techniques like spreadsheets, notice boards, and sporadic email correspondence. These approaches frequently result in lost documents, postponed updates, and a lack of accountability, which confuses students and makes administrators ineffective.

II. LITERATURE SURVEY

Understanding the development, advantages, and disadvantages of the current placement management and tracking systems—both in academic research and institutional practice—is the main goal of the literature study. The background information required to support the proposed Placement Tracker Dashboard's design and execution is provided by this analysis.

The literature study focuses on the development, advantages, and disadvantages of academic institutions' placement management systems. Spreadsheets and manual registers were initially employed, but they lacked transparency and accuracy. Data storage was later enhanced by computerized systems, although they were still freestanding and only partially automated.

III. RELATED WORK

In this project used placement tracker student dashboard for placement drive it is very useful for the admin, student, Institution. The main aim of the project is to every person grab the opportunity. Any person should not miss the opportunity for the information delay. The recruitment drive it is very easy. The institution has very easy to pass the data to the companies. The student can grab every opportunity and take every information Fastly.

IV. EXISTING SYSTEM

In the current system, most educational institutions handle placement activities manually using spreadsheets, notice boards, emails, or paper records. Although this approach allows for basic record-keeping and communication, it suffers from several major drawbacks. There is no centralized storage for placement-related data such as student profiles, company details, and placement results, making data retrieval and management difficult. Tracking student eligibility and application status across multiple recruitment drives is inefficient and error-prone. Moreover, institutions face issues like miscommunication, missed updates, and data duplication due to reliance on scattered communication channels. Generating analytical placement reports such as department-wise performance or company participation trends is also challenging. As a result, the manual process leads to inefficiency, lack of transparency, increased workload for placement officers, and lost opportunities for students due to delayed information flow.

PROPOSED SYSTEM

The proposed Placement Tracker Dashboard is a web-based platform developed using modern technologies such as Python Flask for the backend and MongoDB for data management. The system provides a centralized platform for students to register and manage their profiles, view eligible company drives, apply for placements, and receive timely updates about results. The

platform also allows placement officers and administrators to manage company recruitment details, schedule drives, verify student eligibility automatically, and track placement progress.

SYSTEM ARCHITECTURE

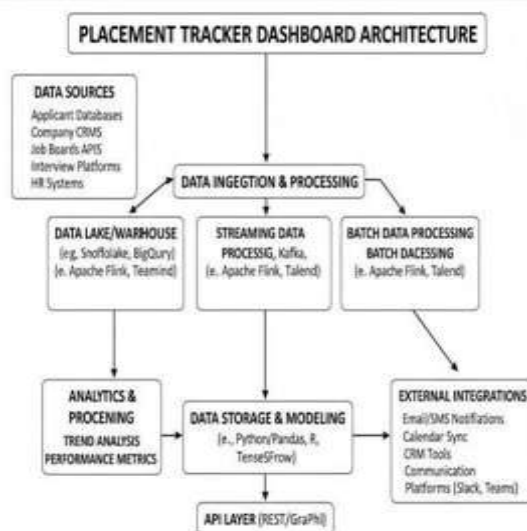


Fig:1 System architecture of the placement tracker dashboard

METHODOLOGY DESCRIPTION

Discovery and Requirements Gathering:

During this phase, we conduct detailed interviews with stakeholders to define the project scope. We identify key performance indicators (KPIs) such as Placement Rate and Average CTC, and we catalogue all data sources including CRMs, databases, and APIs.

System Design and Architecture:

Here, we create the technical blueprint. This includes the data storage schema, either Data Lake or Warehouse, selecting a strong technology stack, and designing detailed UI/UX wireframes and mockups for the dashboard.

Agile Development and Implementation:

we use the blueprint to build the system in small, manageable steps known as sprints. We develop the backend APIs, implement the ETL/ELT data pipelines for both batch and streaming data processing, and construct the frontend user interface with interactive charts and role-based access controls.

Testing and Quality Assurance:

This phase involves thorough Unit,

Integration, Performance, and User Acceptance Testing (UAT) to check the functional requirements, security, and speed under expected load.

Deployment:

We move the system to the production environment, set up continuous integration and continuous deployment (CI/CD) pipelines, migrate any old data, and provide user training.

Post-Launch Monitoring and Maintenance:

This ensures the dashboard remains healthy over time. We continuously monitor performance, address user feedback, update data governance policies, and plan for ongoing improvements and feature updates.

V. RESULTS AND DISCUSSION



```
PS C:\Users\01930\OneDrive\Desktop\Placement-Tracker-Dashboard-Students-Admin> python app.py
* Serving Flask app "app"
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PID: 116-742-559
```

Fig :2 Power shell terminal with command to run the application



Fig :3 Home Page

The home page of the Placement Tracker Dashboard serves as the main entry point for all users.

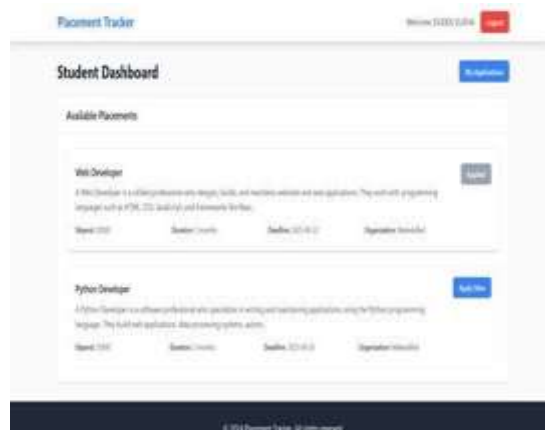


Fig 4: Student Dashboard

The student dashboard provides a clear view of available placements along with important details such as job title, stipend, duration, deadline, and organization.

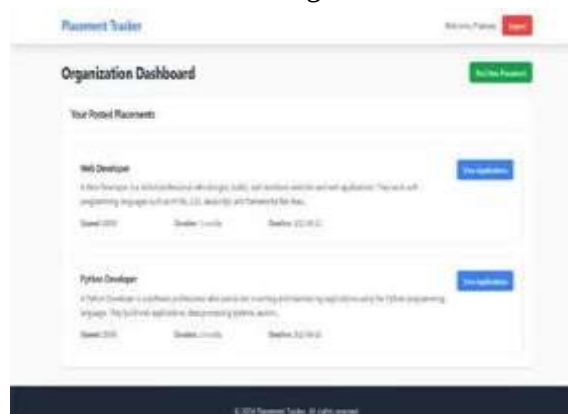


Fig 5: Organization Dashboard

The Organization Dashboard in Placement Tracker allows companies or recruiters to manage their posted placement opportunities.



Fig 6: Admin Dashboard

The Admin Dashboard of the Placement Tracker system, specifically the Pending Organization Approvals section.

VI. CONCLUSION

The Placement Tracker Dashboard has

successfully achieved its intended goals by streamlining the placement process, enhancing communication between students, placement officers, and organizations, and fostering a transparent and trustworthy recruitment environment. Through its web-based platform, it effectively digitizes and automates various stages of placement activities, improving accessibility, accuracy, and overall coordination. The system's intuitive interface and centralized data management simplify monitoring and reporting, ensuring efficient workflow and decision-making. This project demonstrates how digital transformation can significantly enhance academic and recruitment ecosystems, making placement operations more organized, data-driven, and efficient.

FUTURE SCOPE

In the future, the Placement Tracker Dashboard can be expanded with several advanced features to further enhance functionality and user experience. The integration of a mobile application will enable students and recruiters to access placement updates anytime, anywhere. Incorporating AI-driven matching algorithms can intelligently pair candidates with suitable job opportunities based on skills, academic background, and preferences. Adding multilingual support will increase inclusivity and accessibility for a diverse user base. Furthermore, implementing a feedback and rating system will help assess and improve institutional and employer performance. With these enhancements, the system can evolve into a next-generation recruitment and placement platform, offering predictive insights, secure operations, and scalable performance for large educational institutions and corporate organizations.

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