ACROPOLIS INSTITUTE OF TECHNOLOGY AND RESEARCH

Department of Information Technology

Synopsis On

"OpportuniFi – Where Talent Meets Opportunity."

1. INTRODUCTION

1.1 Overview

The project aims to build an automated placement portal that streamlines communication and collaboration between students and placement coordinators. This platform will serve as a centralized hub for managing placement activities, including job postings, application tracking, and updates on recruitment processes. One of the key features of the system is the automatic email notification system, which eliminates the need for manual intervention by sending timely updates to students regarding job openings, interview schedules, results, and other important information.

Key Features:

1.1.1 Student Profiles: Students can create and manage their profiles, upload resumes, and apply for jobs posted by recruiters.

1.1.2 Coordinator Dashboard: Placement coordinators can manage job postings, track student applications, and communicate with companies.

1.1.3 Automated Email Notifications: The system automatically sends emails to students for various events, such as:

- New job opportunities
- Interview invitations
- Status updates on applications (short listing, rejection, etc.)

1.1.4 Real-Time Updates: Students and coordinators receive real-time updates on placement activities, ensuring everyone stays informed.

1.2 Purpose

The purpose of the above system is to streamline and automate the placement process for both students and placement coordinators. It achieves this by providing a centralized platform for managing all aspects of campus placements, while also reducing the need for manual effort through automated email notifications.

Specific Purposes:

1.2.1 Efficient Communication: The platform automates the communication between students and placement coordinators. For instance, students receive automated emails regarding new job postings, interview schedules, or updates about their application status without coordinators having to send them manually.

1.2.2 Centralized Management: It acts as a hub for all placement-related activities, where students can find job opportunities, apply directly, and get updates, while coordinators can manage postings and track applications in real-time.

1.2.3 Time and Effort Reduction: By automating routine tasks like sending emails or status updates, the platform saves time for placement coordinators, allowing them to focus on more strategic tasks.

1.2.4 Improved Transparency and Real-Time Updates: Students remain constantly informed about their status in the placement process, leading to greater transparency and a smoother experience.

1.2.5 Scalability and Easy Handling of Large User Base: For colleges with a large number of students, this automated system ensures that no one is left behind, and information is distributed efficiently without overwhelming the coordinators.

2 LITERATURE SURVEY

2.1 Existing Problem

There are many existing systems for this topic but have certain limitations and problems related to it. Such portals and problems related to it are mentioned below.

2.1.1 Superset

1. Limited Customization: Superset offers a standardized set of features, and institutions may find it challenging to customize the platform based on their needs.
2. Complexity for New Users: For students or placement coordinators who are not tech-savvy, navigating the platform's features can be overwhelming. There is often a learning curve, especially for users unfamiliar with automated systems.

2.1.2 Vercel placement portal

1. User Experience: Enhancing navigation and user interface for better flow.
2. Automation: Adding features for automatic notifications and data updates.
3. Performance: Optimizing database queries and page load times for smoother experience.
4. Security: Strengthening authentication for safer user data handling.

2.1.3 Creatrix Campus' Placement Management Software

1. Integration Challenges: May not easily integrate with existing institutional systems.
2. Customization: Requires significant customization to suit specific needs.
3. Complexity: Some advanced features may have a learning curve for users.

The existing placement process between students and coordinators is manual, inefficient, and prone to delays. Students face difficulties in finding job opportunities, tracking application status, and receiving timely updates. Coordinators struggle with managing job postings, student applications

2.2 Proposed Solution

- **The proposed solution is a web Based Application:**

2.2.1 User Research and Testing

- Gather feedback from students and coordinators.
- Test usability to ensure a smooth experience.
- Create user personas to identify key needs.

2.2.2 Data Analytics and Reporting

- Show student progress and job application success.
- Predict job trends for better planning.
- Create custom reports for coordinators.

2.2.3 Mobile Optimization

- Make the platform mobile-friendly.

2.2.4 Data Security

- Use encryption for secure data transfer.
- Ensure compliance with data protection laws.
- Add two-factor authentication for better security.

2.2.5 Personalized Support and Training.

- Offer personalized training modules for students.
- Give coordinators tools to manage job postings and reports.

2.2.6 Automated Email Notifications

- The system automatically sends emails to students for various events, such as: Campus drives, interview scheduling etc.

3.THEORETICAL ANALYSIS

3.1 Use Case Diagram

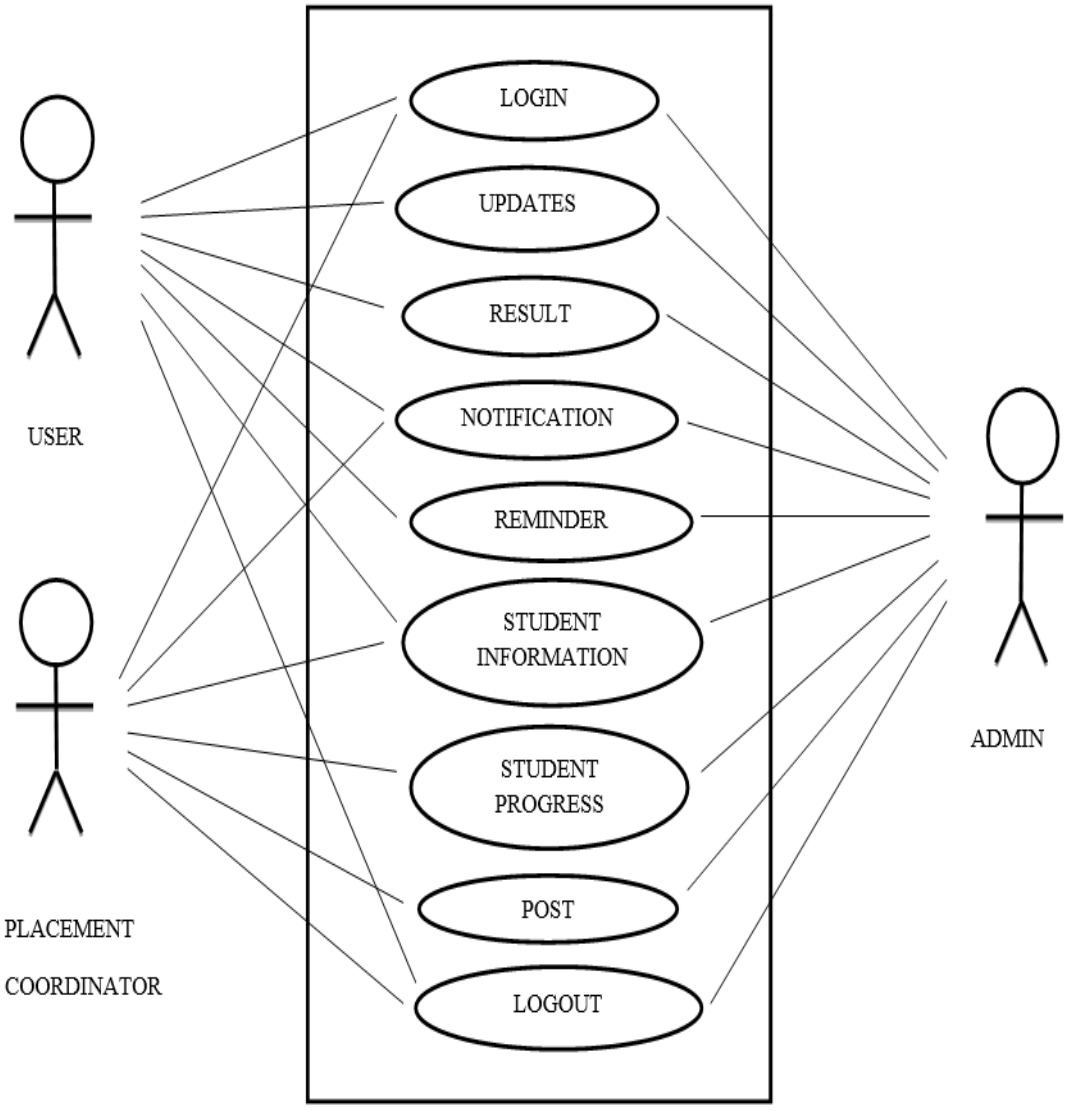

Fig.1 Use Case Diagram of User and Placement coordinator

3.2 Hardware And Software Designing

3.2.1 Hardware Requirements

- Server Requirements:

1. Processor: 2.5 GHz Quad-Core (or higher)
2. RAM: 16 GB (or higher)
3. Storage: 1 TB SSD (or higher)
4. Operating System: Linux (Ubuntu, CentOS) or Windows Server
5. Database Server: MySQL, MongoDB, or PostgreSQL

- Client-Side Requirements:

1. Processor: 1.5 GHz Dual-Core (or higher)
2. RAM: 4 GB (or higher)
3. Storage: 256 GB SSD (or higher)
4. Operating System: Windows 10, macOS, or Linux
5. Browser: Google Chrome, Mozilla Firefox, or Microsoft Edge

- Network Requirements:

1. Internet Connectivity: High-speed internet connection (100 Mbps or higher)
2. Network Protocol: TCP/IP
3. Firewall: Configured to allow incoming and outgoing traffic

- Mobile Device for Running the web Application

3.2.2 Software Requirement

- Front-end: ReactJS, HTML5, CSS3, JavaScript
- Back-end: Node.js
- Database: MySQL, MongoDB

- API Integration: RESTful APIs, GraphQL, JSON
- Authentication and Authorization: OAuth, JWT, Passport.js, OWIN
- Email Notification System: SendGrid, Mailgun, NodeMailer, SMTP
- Real-Time Updates: WebSockets, Long Polling
- Testing and Deployment: AWS
- Project Management and Version Control: GitHub

4. APPLICATION

4.1 University Career Services: Streamline job postings, student applications, and employer connections.

4.2 College Placement Cells: Manage internships, job placements, and career counseling.

4.3 Vocational Training Institutes: Connect students with industry partners for apprenticeships and job placements.

4.4 Online Education Platforms: Integrate career services and job placement support.

4.5 School Counseling: Provide career guidance and college placement support.

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