"Placement Cell System"

NAME- PRN-

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Introduction

- Overview of the Placement Cell System project as a web-based application aimed at simplifying and enhancing the placement process for students and the college.
- This project focuses on creating a user-friendly platform that enables students to register for placements and apply to job openings. For the admin, the system provides features to manage company registrations, schedule interviews, and track placement activities effectively.

Everyone's Role in project

- Shruti Deshmane Frontend included Html, CSS, Bootstrap & Documentation
- Om Lakare Backend included python & PPT
- Tanaya Aghav Database

What you learned

- Importance of effective communication and collaboration within the team.
- Significance of user feedback.
- Value of proper planning, testing, and documentation.
- Insights gained into project management.
- How to use Python Flask library

Motivation

- The motivation behind developing a Placement Cell System project lies in addressing several key challenges faced by both students and college staff in the current manual or semiautomated processes.
- Here are some key motivations Efficiency, Transparency, Enhanced Student Experience, Data Analysis, Competitive Edge, Scalability, Adaptability.
- Overall, the motivation for developing a Placement Cell System project is to modernize and streamline the placement process, ultimately benefiting students and the institution as a whole.

Problem Statement

- The current manual system for managing student placements at our college is inefficient and error-prone. It involves a lot of paperwork, manual data entry, and coordination between students, placement cell staff, and recruiting companies. This manual process often leads to delays, inaccuracies, and a lack of transparency in the placement process.
- There is a need for a more efficient and automated system that can streamline the entire placement process, from student registrations to job postings to interview scheduling. Such a system should provide students with easy access to job opportunities.

Existing system

Manual System

- Paper-based approach.
- Time-consuming, prone to errors.
- Limited automation and tracking.

Spreadsheets

- Uses spreadsheet software.
- Better organization but can be complex.
- Limited integration and real-time updates.

Custom Software

- Tailored functionalities.
- Costly to develop and maintain.
- Suitable for complex needs.

Proposed system

Web-Based Automation

- Centralized web platform automating student registrations, job postings, and interview scheduling.
- Streamlines processes and reduces manual efforts.

User-Friendly Interface

- Intuitive interface for students to apply, update profiles, and schedule interviews.
- Admin tools for efficient user and company management.

Requirement Analysis

- Functional Requirements: Detailed actions and interactions.
- Performance Requirements: Response time, scalability, reliability.
- Security Requirements: access control.
- Usability Requirements: User interface design principles.

Modules

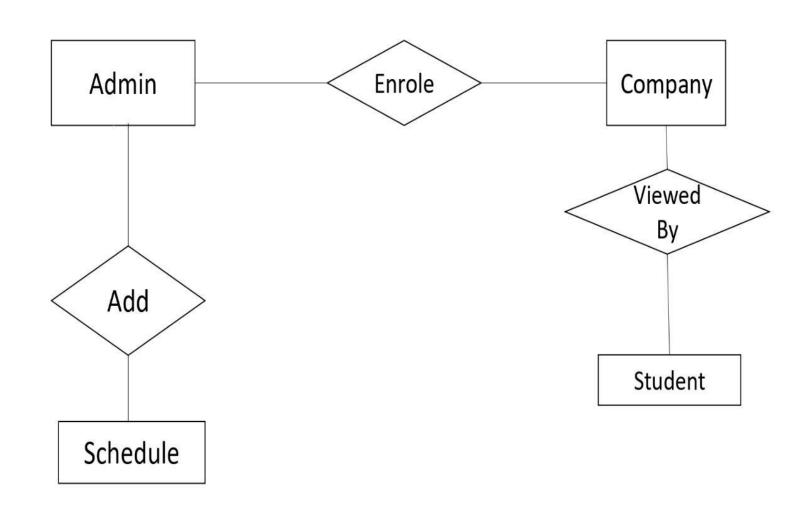
- Student Module:
 - Registration process.
 - Profile management (resume, preferences).
 - Job search and application.
 - ■Interview scheduling.
- Admin Module:
 - **■**User management.
 - Company registration.
 - Job posting.
 - ■Interview scheduling.

Implementation Details

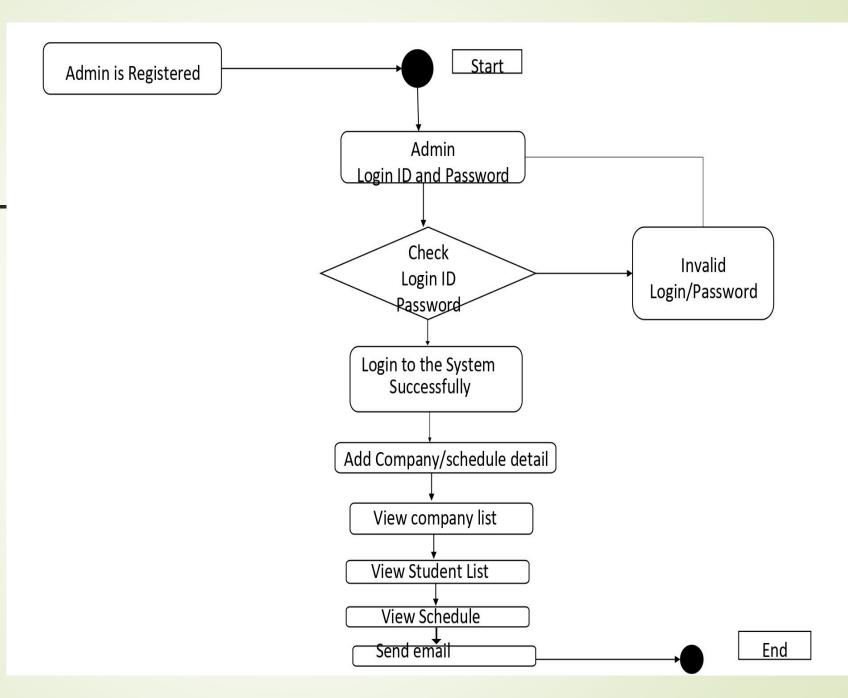
- Software Specifications:
- Operating System:
- Development: Windows, macOS, Linux
- Production: Linux (e.g., Ubuntu, CentOS)
- <u>Database:</u>
- Development: SQLite3
- **■** Backend Framework:
- Python
- Frontend Frameworks/Libraries:
- ► HTML, CSS, JavaScript
- Bootstrap
- Development Tools:
- IDE: Visual Studio Code, CMD

- Hardware Specifications:
- Server:
- Processor: Intel Xeon or equivalent
- RAM: 8GB or more
- Storage: SSD preferred for faster performance
- Client Devices:
- Any modern web browser (e.g., Chrome, Firefox, Safari)
- Networking:
- Stable internet connection for server hosting

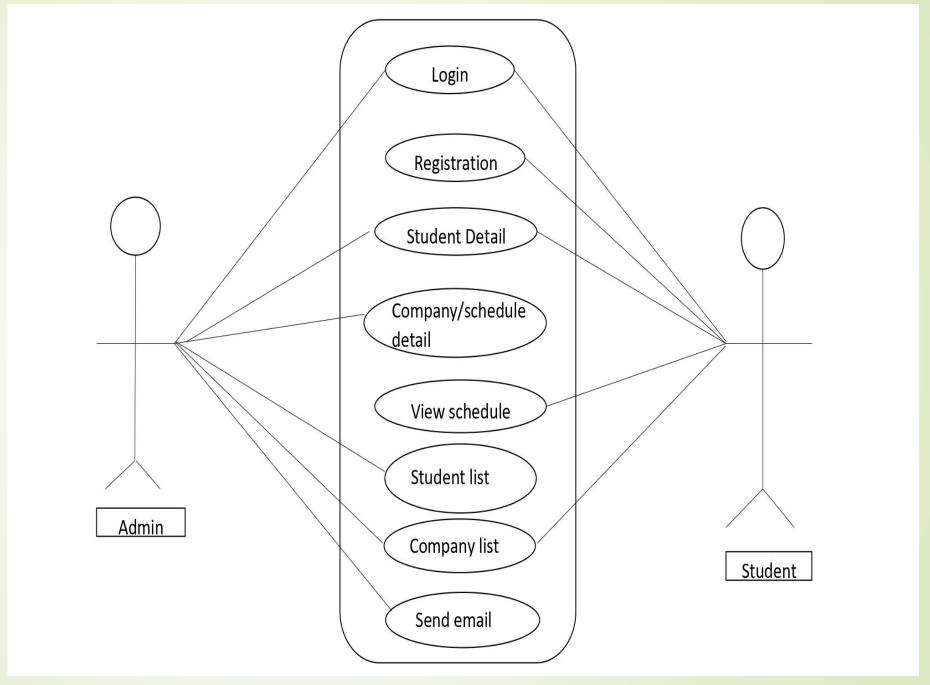
System Design: ERD



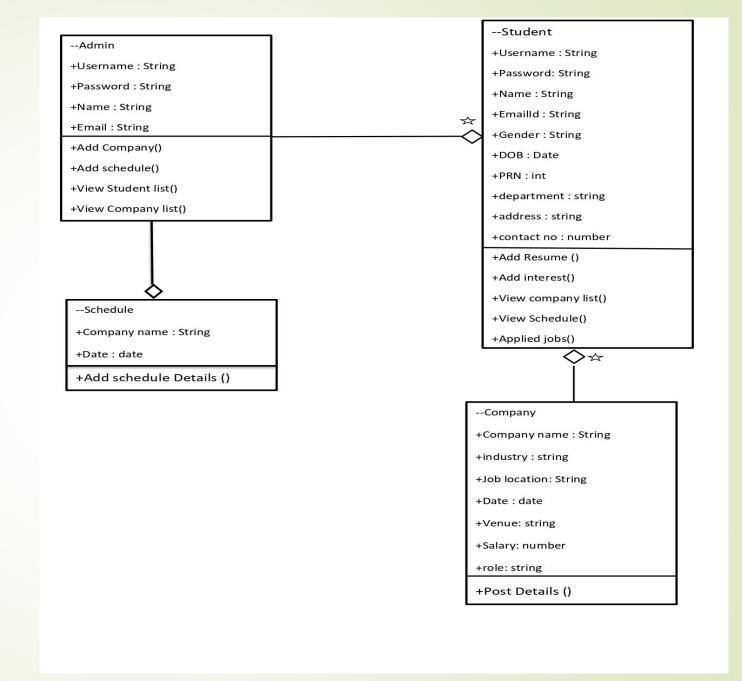
<u>UML Diagrams</u> Activity diagram -



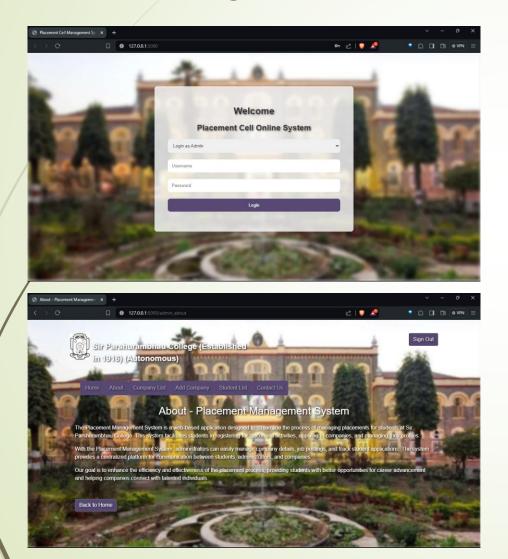
Use case diagram -

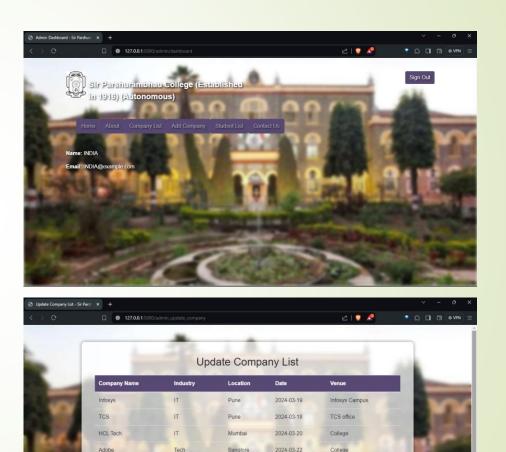


Class diagram -



<u>User Interface – screens</u> <u>Admin login-</u>



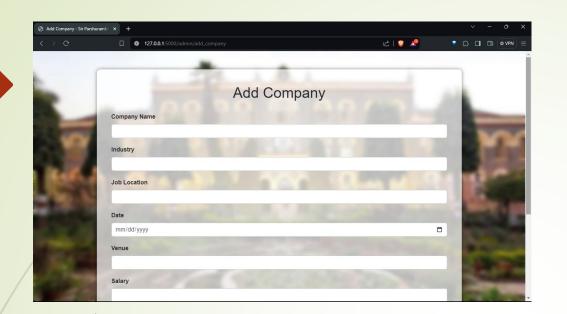


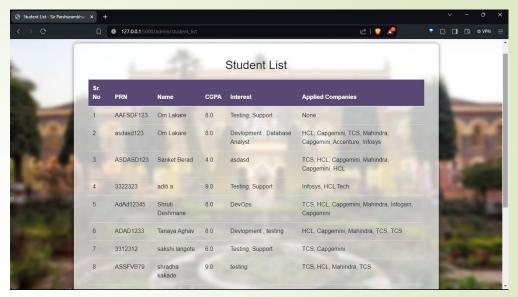
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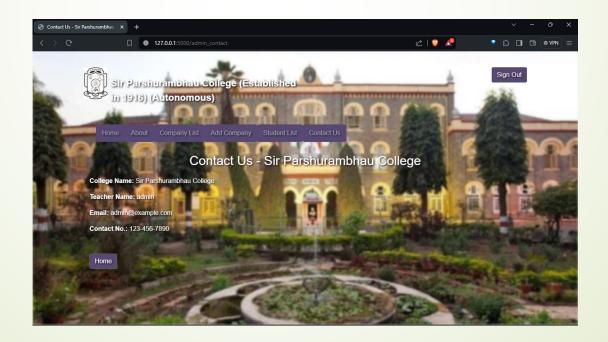
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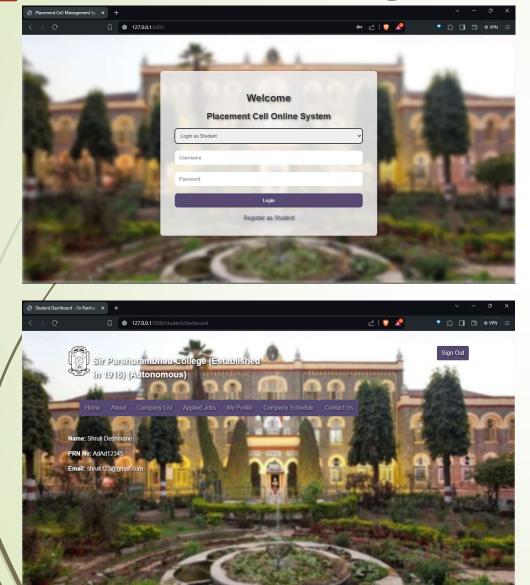
College

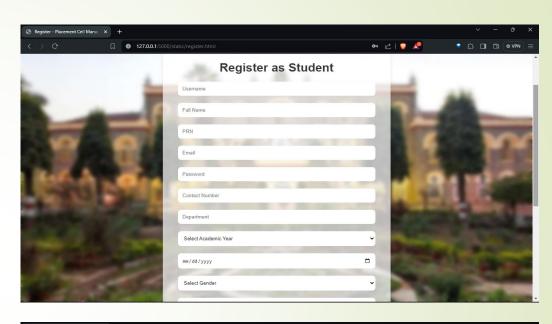


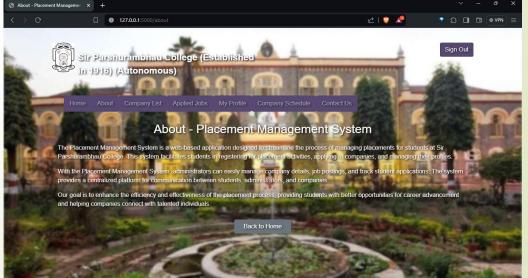


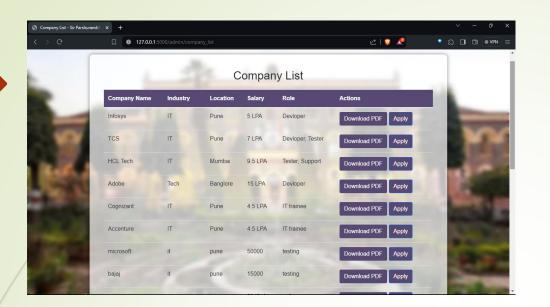


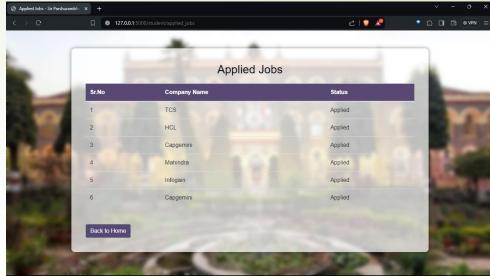
Student Login -

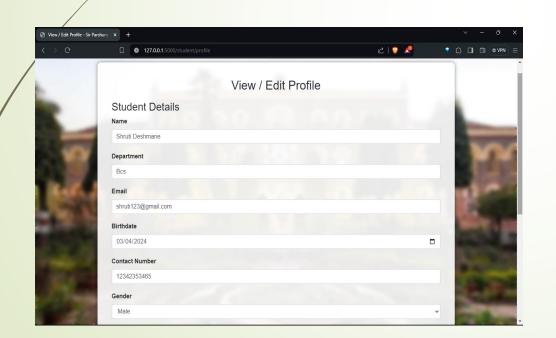


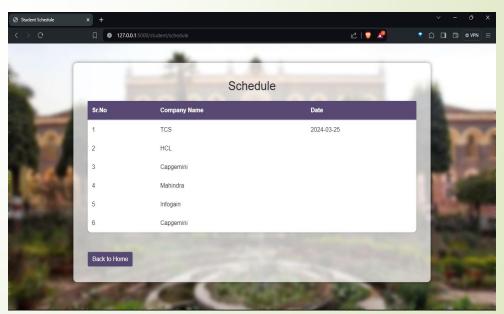












Test Cases

User Registration:

Test student and administrator registration.

Verify that users cannot register with incomplete or invalid information.

Ensure that usernames and email addresses are unique.

User Login:

Test user login with correct credentials.

Verify that users cannot login with incorrect credentials.

Check for proper redirection after login based on user roles.

Profile Management:

Test updating student profiles.

Verify that changes are reflected correctly in the database.

Check for validation of input fields (e.g., email format, phone number format).

Job Search and Application:

Test job search functionality for students.

Verify that students can view job details and apply for jobs.

Interview Scheduling:

Test scheduling interviews by admin.

Check for conflicts in interview schedules.

Limitations

- 1. Dependency on Internet Connectivity
- 2. User Adoption
- 3. Scalability
- 4. User Training
- 5. Limited Customization
- 6. Technical Support

Bibliography and References

- 1. Smith, J. (2021). "Design and Implementation of a Web-Based Placement Cell System." International Journal of Computer Science and Information Technology, 10(2), 45-60.
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Conclusion

- The Placement Cell System project aims to streamline and automate the placement process for colleges and students. By implementing a web-based platform, the project facilitates efficient communication and interaction between stakeholders, enhances transparency, and improves overall placement outcomes.
- The system's key features, including student and admin registration, job posting and application management, interview scheduling contribute to a more streamlined and effective placement process.