

Object Oriented Programming

Innovative Assignment

Placement Management System

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Project Overview

In this project student and company can create account by signup option and login using their id and password. Company can create job opening and student can apply for it. Company can see the applicants and shortlist them for interview after interview company can confirm their placement.

This project has 4 major functionalities

1. **User register and login**
2. **Job posting**
3. **Student assessment**
4. **Data storage**

1. User register and login

In this system we can login by two ways 1.As a company 2. As a student and after login they can access their menu.

Features

- **Registration**
 - Both students and companies have can enter their basic detail and create their account.
 - For student they have to enter their name,address,roll number,expected ctc,cgpa etc after creating an account they have to appear for a test.
 - For companies they have to enter their username , company name ,location ,min and max ctc .

- **Login (UserLogin):**
 - Both students and companies have secure login options.
 - Login credentials are verified against records in usermanager.txt.
 - Upon successful login, the system directs users to their respective dashboards based on their roles (student or company), providing access to role-specific functionalities.
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2. Job Posting

In this part company can create their job opening and student can see it.

Features

- **Job Creation :**
 - Companies can create job listings by entering job titles, descriptions, required skills, and eligibility criteria.
 - Job details are stored in "JobOpenings.txt" file for further use in code.
 - This section get available after company login or signup.
- **Job Display :**
 - Students can view job openings created by companies.
 - Only those job will be shown to student in which they are eligible according to their test score.
- **Job Applications:**
 - Students can submit applications for the jobs they are interested in.
 - Application data is saved in "JobApplications.txt" allowing companies to review and shortlist candidates.
 - Companies can shortlist candidates based on their offline interviews and then update status in this software.

- **Shortlisting and Hiring:**

- Based on their skills and test scores company can enter shortlisted student and conduct their interview.
 - Based on their interview performance company can hire student by entering their roll number in software
 - At the end we can generate placement report which will show which student is hired in which job at what etc.
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3. Student Testing

When student create their account they have to give a test and based on that test their score will be decided.

Features

- **Test Management (mcqs.java):**

- The system loads multiple-choice questions from a designated file, such as "dsa_mcq_placement_test.txt." we can add or remove this mcqs manually in test file.
- Student can give answer and system will check that answer is right or wrong and their score will be calculated.

- **Scoring and Assessment:**

- After a student completes the test, the module calculates scores based on correct answers.
 - Scores are saved in StudentTest.txt, which could be referenced by companies to assess students' technical competencies.
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4.Data storage

The system uses text files for data storage, ensuring persistence across sessions:

- **userManager.txt**: Stores user credentials for login (both companies and students).
 - **JobOpenings.txt**: Contains job listings created by companies.
 - **JobApplications.txt**: Stores data on job applications submitted by students.
 - **hiredStudents.txt**: Records the list of students who have been hired.
 - **StudentDetails.txt**: Maintains detailed profiles of students.
 - **StudentTest.txt**: Saves placement test scores for future reference.
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Key User Workflows

For Students

1. **Registration**: Create a profile with personal and academic details.
2. **Login**: Authenticate to access job listings, apply for jobs, and take tests.
3. **Browse Jobs**: View and filter available job openings.
4. **Apply for Jobs**: Submit applications for desired positions.
5. **Take Placement Tests**: Complete MCQ tests to showcase skills.

For Companies

1. **Registration**: Sign up with company details to enable job posting.
2. **Login**: Authenticate to access job creation and application management tools.
3. **Post Jobs**: Create job listings with descriptions and requirements.
4. **Manage Applications**: Review, shortlist, and hire candidates.

5. **View Test Scores:** Evaluate candidates' placement test results (if applicable).
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Conclusion

This recruitment management system offers a structured approach to connecting students with job opportunities and assessing their suitability through profile management and placement tests. Key features provide seamless registration, secure login, job browsing, and skill assessment, making it a powerful tool for both companies and students in the recruitment process. The modular design and organized file structure support efficient operations, providing a foundation for potential future enhancements.