Software Requirements Specification

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY,GUWAHATI

CS330: SOFTWARE ENGINEERING PROJECT

PLACEMENT CELL MANAGEMENT SYSTEM

BY

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Introduction

➢ Purpose

This Software Requirements Specification provides a description of all the functions and constraints of the Placement cell management System, developed for IIIT Guwahati's placement cell.

The Placement Cell Management System is for the students and companies. In this website, we maintain the database of students which include their personal information and Academic performance. It will also manage the data of the Company which would comprise of the profile of the Company, eligibility criteria and the facilities or the package it provides etc.

The System would provide the facility of viewing both the personal and academic information of the student and company; it would also search for eligible students and companies and deal with the insertion and deletion of records.

Students can apply for jobs through this website when a company posts jobs on the website.

➢ Document Conventions

Heading:

Font Size: 20
Font Style: Bold
Font: Arial Black

Sub Heading:

Font Size: 14
Font Style: Bold
Font: Times New Roman

Content:

Font Size: 12
Font: Times New Roman

➢ Intended Audience and Reading Suggestions

The intended audience of this document includes faculty members in the Placement Cell, the developers and the students looking for On-Campus placements. This will be knowledgeable to company HR to understand our college efficiently. The information displayed, and other

statistical information will attract new admission and a clear picture with records will be maintained with this portal.

The audience precisely will be:-

a. Students of IIIT Guwahati.
b. Faculty and management of the college to get a statistical view.
c. Companies HR which are coming for recruitment purpose

➢ Product Scope

The System would store all the academic as well as personal details of the students who wish to be placed and the Companies who offer jobs to the students.

The details of the Companies as well as the students may be updated or modified or deleted to keep the information up to date.

Overall Description

This project is to facilitate students in college, company to register and communicate with the Placement Office. The users can easily access the data and it can be retrieved easily in no time.

➢ Product Perspective

Placement Cell has to collect the information from various companies who want to recruit students and notify students from time to time about the placements.

Placement Cell also has to arrange profiles of students according to various streams and notify them according to company requirements. If any modifications or updates are required in the profile of the students of the Company, it has to be searched and done manually.

Hence the Placement Management System would maintain a huge database for the complete details of the students as well as the Companies in the Placement process which would help to save time and effort.

➢ Product Functions

The Placement Cell Management System is to be developed as an attempt to make a record of Companies and students by restricting a large database that would be used for each. The System would provide the facility of viewing both the personal and academic information of the students and also the company.

The System would also be able to search for eligible students and companies with respect to their specifications and requirements.

➢ User Classes and Characteristics

a. Student
b. New Student needs to sign up or register giving complete details
c. They can register for a particular Company.

➢ Administrator

a. The Admin has the supreme power of the application.
b. Admin provides approval to the Student and the corporate registration.
c. Admin is responsible for maintaining and updating the whole system.

➢ Company

a. The Company initially has to sign up.
b. The Company may shortlist the students who applied. They may use their details (academic as well as personal).

➢ Operating Environment

a. Relational Database
b. Client/Server system
c. Operation System: Windows
d. Database: SQLite
e. Platform: Django.

➢ Design and Implementation Constraints

Design Constraints:

a. Security: The files in which the information regarding securities and portfolios should be secured against malicious deformations.
b. Fault Tolerance: Data should not become corrupted in case of a system crash or power failure.

- **Assumptions and Dependencies**

a. We are assuming that the user should have some basic knowledge of placement.
b. Jobseekers can be from any field.

System Features

Notice Boards with Placement Notifications :

a. The Notice Boards section is the more important module of the System as it provides updates to the students regarding the Companies that would come to Campus or that would be coming in the next few weeks.

External Interface Requirements

- **User Interface**

a. Front-End Software: HTML, CSS, Javascript, Bootstrap

b. Back-End Software: SQLite

- **Software Interfaces**

a. Operating system: Windows

b. Web Server: Apache or Nginx

c. Database: SQLite

d. Scripting Language: Django, Javascript

- **Hardware Interfaces**

The program will communicate with the hard drive (the file-system and database) via the appropriate Django code. The user can communicate through a browser using a keyboard and a display through a graphical interface displayed on the user's screen.

- **Communications Interfaces**

The requirements associated with any communications functions required by this product, including e-mail, web browser, network server communications protocols, electronic forms, and so on. Communication standards that will be used, such as HTTP. Communication security or encryption issues will handle by using java scripts.

Non-Functional Requirement

- **Register**

a. Students and the Companies have to register with all their documents that the Administrator would verify. Only after thorough verification would the college or student and the Companyis allowed to register.

b. These documents would also be maintained by the Administrator for future reference. The documents should be maintained at least till the placement activities of the particular company.

c. While registering the company and students should give their complete details i.e.

i. academic or professional and personal details.

- **Login**
- **Upcoming Placement Activities**
- **Maintaining Statistics**
- **Usability**

- **Performance Requirements**

a. The completely separate business logic at server side from the student interface ensures good performance.

b. The system exhibits high performance because it is well optimized. The business logic is clearly separate from the user interface.

c. The product performance needs to be assessed on certain characteristics. The input that the students give i.e…, User ID and Password is very important.

➢ Safety Requirements

If there is extensive damage to a wide portion of the database due to catastrophic failure, such as a disk crash, the recovery method restores a past copy of the database that was backed up to archival storage (typically tape) and reconstructs a more current state by reapplying or redoing the operations of committed transactions from the backed up log, up to the time of failure.

➢ Security Requirements

Security systems need database storage just like many other applications. However, the special requirements of the security market mean that vendors must choose their database partner carefully.

➢ Software Quality Attributes

a. **Availability:** The placement cell should be available for any student or companies on any specified date and time.

b. **Correctness:** The person should get the job if he got selected in the interview.

c. **Maintainability:** The administrators and placement officer in chargers should maintain correct schedules of placements and placement statistics.

d. **Usability:** The placement cell should satisfy the needs of all students of both the streams.

Limitations:

a. The records are not sorted in hierarchal format and hence searching problem occurs in databases.
b. Communication between companies and students is not provided through this platform.
c. Non-relational databases cannot be handled