
Software Requirements Specification

For Online Training and Placement Portal

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The purpose of this document is to present a detailed description of online placements and training portal. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to the different users.

1.2 Document Conventions

We have followed IEEE standard to prepare this document. This document is formatted in natural language sentence.

1.3 Intended Audience and Reading Suggestions

This document can be referred by software developers, documentation writers, project manager and the users.

1.4 Product Scope

This project will be developed to provide an online automated web application to the training and placement department of colleges. Students can register, update or delete their profiles. Admin can register and manage various companies coming for placement. The system will generate eligible students list and give it to the admin. Admin can send notifications about upcoming companies to the students. The system will also provide the facility to generate reports about last year placement activities. Student can also share their interview experience.

1.5 References

IEEE format to write Software Requirement Specification.

2. Overall Description

2.1 Product Perspective

Online Placements and Training portal is a self-contained web application which provides an easy and reliable placement system to colleges. This product is intended to be a full replacement for the manual placement system. It will be used by the students and placement and training officers.

2.2 Product Functions

- Authentication of the users.
- Student registration and management.
- Company registration and management.
- Shortlist students based on company's criteria.
- Notify students about upcoming companies.
- Student registration for an interview.
- Past year placement information.
- Share interview experience.

2.3 User Classes and Characteristics

The major User classes in the System would be:

1. Administrator users

- The Admin users are main users of the system. Training and placement officers will become admin users of the system.
- Admin users have all privileges.

2. Student users

- Student users are students that study in college. Student will register themselves for the placement.
- Students can view and update their personal details also they can register them for the interviews.

2.4 Operating Environment

This is a web-based system and hence will require a graphical operating environment.

2.5 Design and Implementation Constraints

There are no design and implementation constraints.

2.6 User Documentation

A well-documented user manual will be provided after the completion of the project to delineate all the features of administration and other users account.

3. External Interface Requirements

3.1 User Interfaces

The website should work and be tested for Firefox, Google Chrome. The website will be fully compatible with any modern web browsers that support JavaScript.

3.2 Hardware Interfaces

The device should be enabled with the Internet.

3.3 Software Interfaces

Server Side:

- Operating system: Any operating system which has a graphical user interface
- Web Server: IIS Express
- Database: ADO.net
- Technology: ASP.net and C#

Client Side:

- The user's browser should support HTML5 and JavaScript and cookies must be enabled for a satisfactory user experience.

3.4 Communications Interfaces

The system will require the HTTP + SSL protocol to provide a secure communication interface over the internet.

4. System Features

4.1 System will authenticate/register users.

Description: System takes username and password from user to validate user as per their role, Student can also register themselves.

4.1.1 System will provide facility to create student profile.

Input: Student registration details.

Output: Profile created message and auto-generated user-id.

Description: System will store student information and generate user-id and provide it to student.

4.1.2 System will provide facility to authenticate user.

Input: User Credentials.

Output: Home Page as per user or error message.

Description: There are two types of users

1. Admin (PTO)
2. Students

Based on user's role in the system, system will validate the user and show homepage or an error message.

4.2 System will provide facility to manage students' profile.

Input: Student Details.

Output: Success or Error message.

Description: Student can update their profile and they can deactivate their profile.

Functional Requirements

4.2.1 System will provide facility to update students' profile.

Input: Student details and password.

Output: A confirmation message

Description: System will take new information and password from student and update it into their profile.

4.2.2 System will provide the facility to deactivate students' profile.

Input: Username and Password.

Output: Confirmation message.

Description: System will ask user-id and password for security and delete corresponding account.

4.3 System will provide facility to manage Company profile.

Input: Company Information.

Output: Success or Error message.

Description: Admin can add particular company and its information and also update the company profile.

Functional Requirements

4.3.1 System will provide the facility to register a company.

Input: Company details.

Output: Company-id and success message.

Description: System will store the details of company provided by admin and generate company-id.

4.3.2 System will provide the facility to update company's information.

Input: Company id and details.

Output: Confirmation details.

Description: Company requirements may change every year

4.3.3 The system will provide to the facility to students to register them for an interview.

Input: registration request

Output: A confirmation message

Processing: System will verify student eligibility for the company and in company's full details from the database.

4.4 System provides facility to generate notice.

Input: Upcoming company details.

Output: Generate notice on student's homepage.

Description: Admin can inform student via mail and small notice on homepage. Notice will provide two button for each student to accept or decline for particular company.

Functional Requirements

4.4.1 System will provide facility to view upcoming company.

Input: Company id

Output: Company details.

Description: System will show all upcoming list. Based on selected company list system will show details.

4.4.2 System will provide facility to register student in upcoming company.

Input: Student Response.

Output: Conformation message.

Description: After registration of the student, if the student is eligible for the company criteria, a confirmation will be shown.

4.5 System will provide facility to show past year placement information.

Input: Type of View

Output: Graph or tables.

Description: System can show past year information via graph or tables characterized by company or department.

4.5.1 System will provide facility to show information in form of graph or tables year wise.

4.5.1.1 System can show details by department in form of graph and tables.

Input: Department name.

Output: Past year details by department.

4.5.1.2 System can show details by company in form of graph and tables.

Input: Company name.

Output: Past year details by company.

4.6 System will provide facility to student to share past interview experience to all students.

Input: Company name and description.

Output: Generated post on homepage.

Description: Based on entered description by student system generate post after few verifications.

Other Non-functional Requirements

5.1 Performance Requirements

The website should be hosted on a server that can provide adequate response time. College students tend to have short attentions spans, so a slow server would not be satisfactory for this application. The website must serve at least 50 simultaneous users under normal operating conditions.

5.2 Safety Requirements

Information transmission should be securely transmitted to the server without any changes in information.

5.3 Security Requirements

- The software, i.e. the website should be strong enough to avoid hacking through XSS or SQL vulnerability.
- Nobody should be allowed to tamper with data. It should be made sure that only users who are given specific rights can access data.

5.4 Software Quality Attributes

- **Availability:** If the internet service gets disrupted while sending information to the server, the information can be sent again.
- **Scalability:** If the number of users of the system increases, it must not affect system performance.
- **Reliability:** As the system deals with confidential and important information of college and students, it must be made sure that the system is reliable in its operations and for securing the sensitive details.