Software Requirements Specification

For

Online Training and Placement Portal

Version 1.0 approved

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Revision History

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| **Name** | **Date** | **Reason For Changes** | **Version** |
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# Introduction

## Purpose

This Software Requirements Specification provides a description of all the functions and constraints of the Placement management System, developed for various colleges’ placement cell. The Placement Management System is for the students and companies which maintains the database for the students where all the students’ records are entered including their academic details and their personal details. 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 Company and deal with the insertion and deletion of records.

## Document Conventions

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

## Intended Audience and Reading Suggestions

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

## 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  may be updated or modified or deleted to keep the  information up to date. And information of students also can be updated but academic details of students only can be changed after verifying by collage.

Also notifications would be sent to the students about the Companies i.e. details like the Company profile, eligibility criteria for the job profile etc.

 Also the information regarding the Placement activities or procedure for a particular Company i.e. the selection rounds or procedure. And Experience, reviews , suggestion and interview tips by placed students and collage faculties also will be provided for particular companies.

Here Requirement for Database for various Companies and All Students of different fields And with Whole Required Details will be large. And For Overhead safety DataBase only can be able handle at maximum 5000 Users.

## References

IEEE format to write Software Requirement Specification.

# Overall Description

## Product Perspective

Placements and Training portal is aself-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.

## 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.
* Provides interview and aptitude questions company wise and provides information about workshop, seminars and any useful activity.

## 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 request for the placement activity.

3.Company

* Company has to be registered first and then it can interact with placement officer of collage and can see details of every students including personal information.
* Company also can short list students as per it’s criteria.
* And provide information or suggestion to students.

## Operating Environment

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

Minimum RAM 1GB

10GB storage Space

Browser with HTML and Java Script Support

## Design and Implementation Constraints

Sufficient Fault Tolerance should be there for avoiding crashing or power failure.

## User Documentation

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

FeedBack or Report can also be accepted as suggestion for Bug Report or any malicious behaviour.

# External Interface Requirements

## User Interfaces

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

## Hardware Interfaces

The device should be enabled with the Internet.

## 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.

## Communications Interfaces

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

# System Features

## 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.

### 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.

### System will provide facility to authenticate user.

**Input:** User Credentials.

**Output:** Home Page as per user or error message.

**Description:** There are three types of users

1. Admin ,
2. Students and
3. Company

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

## 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**

### 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.

### System will provide the facility to deactivate students’ profile.

**Input:** Username and Password.

**Output:** Conformation message.

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

## 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**

### 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.

### System will provide the facility to update company’s information.

**Input:** Company id and details.

**Output:** Conformation details.

**Description:** Company requirements may change every year

### 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.

## Systemprovides 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**

### System willprovide 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.

### 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.

## 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.

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

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

**Input:** Department name.

**Output:** Past year details by department.

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

**Input:** Company name.

**Output:** Past year details by company.

## 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.