Department of Computer Engineering

Academic Term: First Term 2023-24

Class: T.E /Computer Sem – V / Software Engineering

Practical No:	**1**
Title:	**Software Requirement Specification**
Date of Performance:	25-08-2023
Roll No:	9770
Team Members:	

Rubrics for Evaluation:

Sr. No	Performance Indicator	Excellent	Good	Below Average	Total Score
1	On time Completion & Submission (01)	01 (On Time)	NA	00 (Not on Time)	
2	Theory Understanding(02)	02(Correct)	NA	01 (Tried)	
3	Content Quality (03)	03(All used)	02 (Partial)	01 (rarely followed)	
4	Post Lab Questions (04)	04(done well)	3 (Partially Correct)	2(submitted)	

Signature of the Teacher:

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Case Study 1—Requirements Specification Document

1 Abstract

This is a requirements document for the case study that will be used throughout the book. The system to be developed is for scheduling Interviews between college students and companies coming for the placement in a college, also along with it the system should also send messages and emails to various stakeholders updating them about the placement process. The proposed system should work as a centralized for the entire Placement process. This document follows the IEEE standard for a requirements specification document, withsome variations.

2 Introduction

2.1 Purpose

This document only describes the requirements that are needed for a course Placement system for a college in a university.

2.2 Scope

As mentioned above the document is only a requirement-describing document. It is meant for use by the developers and various stakeholders about specific external requirements and the expectations from the designed system. It will also be the basis for validating the final delivered system. Any changes made to the requirements in the future will have to go through a formal change approval process. The developer is responsible for asking for clarifications, where necessary, and will not make any alterations without the permission of the stakeholders.

2.3 Definitions, Acronyms, Abbreviations

Not applicable.

2.4 References

Not applicable.

2.5 Developer’s Responsibilities

The developer is responsible for (a) developing the system, (b) installing the software on the client’s hardware, (c) conducting any user training that might be needed for using the system, and (d) maintaining the system for a period of one year after installation.

3 General Description

3.1 Product Functions Overview

In a college there are students who have segregated into various departments based on the courses they have taken. Every year the college selects students for the placement process according to their performance in their past exams. Their list is then forwarded to the companies. The companies then select the candidates that they want and the selected candidates get the messages that they are selected

The system should allow students to send their Resume to the companies. It should also send regular updates to the students about various requirements and Interview dates via Whatsup and Mails.The system should also be able to suggest courses which can be used by the students to upskill themselves and to meet the company criteria.

3.2 User Characteristics

The main users of this system will be Training and Placement officers, Students , Teachers, and Company representatives who are somewhat literate with computers and can use programs such as editors and text processors.

3.3 General Constraints

The system should run on Sun 3/50 workstations running UNIX 4.2 BSD.

3.4 General Assumptions and Dependencies

Not applicable.

4 Specific Requirements

4.1 Inputs and Outputs

The system has two file inputs and produces no outputs .

Input file 1: Contains the list of students and their information

student

st1:data

st2:data

;

2

where data is the student information consisting of

- name
- address
- contact info
- courses done
- grades…etc

Input file 2: Contains information about the companies tied with the college offered and their information.

company
company1:data
company2:data

:

Where the data is the company information consisting of :

- Company name
- Company representive
- Contact information
- Job vacancies
- Job description
- Salary offered

4.2 Functional Requirements

- **Student registration and profile management:** The site should allow students to register and create a profile that includes their personal information, academic transcripts, and resume.
- **Training course management:** The site should allow administrators to create and manage training courses. This includes adding new courses, editing existing courses, and deleting courses.
- **Job posting and application management:** The site should allow companies to post jobs and students to apply for jobs. This includes searching for jobs, viewing job postings, and submitting applications.
- **Communication:** The site should allow students and companies to communicate with each other. This includes sending messages, uploading files, and scheduling interviews.
- **Reporting:** The site should provide reports on student progress, job postings, and applications. This information can be used to track the performance of the site and make improvements.

4.3 External Interface Requirements

The requirements are as follows:

- **API:** The site should provide an API that allows other systems to interact with it. This API could be used to retrieve student profiles, job postings, or other data from the site.
- **Web services:** The site should also provide web services that allow other systems to interact with it. These web services could be used to perform tasks such as registering students, creating training courses, or posting jobs.
- **Data feeds:** The site should provide data feeds that allow other systems to subscribe to changes in data on the site. This could be used to keep other systems up-to-date on the latest student profiles, job postings, or other data on the site.

These are just some of the external interface requirements for a training and placement site. The specific requirements will vary depending on the needs of your organization.

In addition to the above, here are some specific safety guidelines that should be incorporated into the external interfaces:

- **Data security:** All data transferred between the site and other systems should be encrypted to protect it from unauthorized access.
- **Access control:** Only authorized users should be able to access the site's API, web services, and data feeds.
- **Logging:** All access to the site's API, web services, and data feeds should be logged to track who is accessing the data and what they are doing with it.

These safety guidelines are important to protect the data on the site and to prevent unauthorized access to the site's resources.

4.4 Performance Constraints

- **Response time:** The site should have a fast response time, especially for critical tasks such as registering students or applying for jobs.
- **Scalability:** The site should be able to scale to handle a large number of users.
- **Availability:** The site should be available 24/7, except for scheduled maintenance.
- **Security:** The site should be secure and protect the confidentiality of user data.

4.5 Design Constraints

Software Constraints

The system is to run under the UNIX operating system.

Hardware Constraints

The system will run on a Sun workstation with 256 MB RAM, running UNIX. It should also be compatible with smartphones.

Acceptance Criteria

Before accepting the system, the developer must demonstrate that the system should be able to manage demonstrate with test data . The developer will have to show through test cases that all conditions are satisfied.

Postlab :

1. Some of the specific impacts of a well-defined SRS on project success:

- **Reduced risk of project failure.** A well-defined SRS helps to reduce the risk of project failure by preventing misunderstandings, scope creep, and defects.
- **Improved project efficiency.** A well-defined SRS helps to improve project efficiency by providing a clear understanding of the requirements, which can lead to more efficient planning, development, and testing.
- **Increased customer satisfaction.** A well-defined SRS helps to increase customer satisfaction by ensuring that the final product meets the needs of the stakeholders.

Overall, a well-defined SRS is a critical component of any software development project. By clearly defining the requirements, the SRS helps to improve the chances of project success.

2. The given sample srs is can be futher improved by adding abbreviation which could added and also be used in the document. Adding the references to previous projects also helps to understand the technical feasibility of the project