Software Requirements Specification

for

Reviewer

Version 1.0 approved

Prepared by Jayesh Parmar(CE092),Nikul Lakum(CE072)

CE, Dharmsinh Desai University

25-12-2020

Table of Contents

Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

Reviewer is an anonymous peer review for lab work. The purpose of this document is to create a list of detailed requirements for the Reviewer. This document will capture interactions between different internal web pages, environment scenarios of usage, constraints and Reviewer prototype.

1.2 Document Conventions

This document is formed using IEEE SRS format, headings are in bold capital letters and wherever a necessary diagram is provided.

1.3 Intended Audience and Reading Suggestions

This document will capture all stakeholders' preferences, different conflicts and their resolution. Also, it could be used by potential developers, design engineers, testers, project managers, etc. Eventually this document can be used while preparing user documentation. This document will be proposed to different stakeholders for their approval and can be used as a reference guide in different phases of system development.

1.4 Product Scope

The scope of the Reviewer is to create an online web-interface for the students to review each other's lab work anonymously. This system will be an alternative to the traditional offline way of checking lab work and reviewing them. It will help students to revise concepts and be helpful for teachers by lowering their workload. The scope of the system which is described in this document is the user interface. The system will have two major types of users: student and teacher.

1.5 References

IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998

2. Overall Description

2.1 Product Perspective

The system considers student and teacher perspectives. It has an Online lab work review interface – where students are able to review their classmate's lab work anonymously and use system functions described in his document, while for the teacher and administrative use there is a separate environment, where uploading tasks, check reviews and all relevant operations run. Both systems are based on the common database. They are integrated with each other, meaning the relevant data is exchanged.

2.2 Product Functions

- Student module
  - Login
  - Post lab work of related assignment
  - Review assigned lab work
- Teacher module
  - Login
  - Register
  - Post assignment
  - Post referral solution
  - View reviewed lab work
  - Register students

2.3 User Classes and Characteristics

There are two user classes in Reviewer: Student and Teacher.

- Teacher
  Teacher can register students to the database. Teacher would be able to post assignments and post solution lab work as referral. Also users can view reviewed lab work and can see reviewed by whom.
- Student
  Student is the main user of the software intensive system. students would be able to post their lab work and review each other's lab work. Students input is required for making a successful review of lab work.

2.4 Operating Environment

Reviewer is the web-based application. It works on major browsers like chrome, Firefox, safari, edge etc. Works with many operating systems like windows, Linux and macOS. Internet connection is required.

2.5 Design and Implementation Constraints

Reviewer is a Web application, so users need to use any kind of browsers and also need the internet. Design will be simple enough to understand.

2.6 User Documentation

2.7 Assumptions and Dependencies

This system depends on database, internet connection and browers. The assumption is that all student will submit their lab work on system within deadline and all student will stay online on system while reviewing lab work.

3. External Interface Requirements

3.1 User Interfaces

Reviewer should be able to easily accessible by all users. It should have simple onterface with necessary buttons and links.

3.2 Hardware Interfaces

Reviewer is a web based application. It will require a computer or Laptop for the best experience.

3.3 Software Interfaces

Reviewer works on major browsers like chrome, Firefox, safari, edge etc. Works with many operating systems like windows, Linux and macOS with internet connection.

4. System Features

It specifies the main features and functions of the system.There are two main users in Reviewer, Teacher and student. Based on that here's functional requirements described by two modules.

4.1 Teacher module

4.1.1 Registration

Teacher will have to register themselves while accessing system first time
Input: Teacher ID, password
Output: confirmation message

4.1.2 Login

Teacher will have to login before accessing the system.
Input: Teacher ID, password
Output: confirmation message and redirect to teacher module

4.1.3 Register students

Teacher will have to register students first to review the lab work
Input: Student ID, password
Output: display list of added student

4.1.4 Manage students

Teacher can manage added student from the list. Teacher can remove students permenantly or keep off for particular assignment review.
Input: user input by button
Output: list of rest student

4.1.5 Post assignment

Teacher can post assignment for particular lab with finish deadline before review so student can post their lab work.
Input: input for deadline and text or file of an assignment
Output: redirect to assignment module. Teacher can see list of submitted lab work there.

4.1.6 Solve queries

Teacher can view queries related to assignment if any doubts is raised by student. also teacher can reply to the questions asked by student.
Input: Text input
Output: confirmation and answerd text is sent to students.

4.1.7 Post Solution as a referral

After all student submit their lab work, teacher can post solution of an assignment as a referral for reviewing students.
Input: file of an solution
Output: confirmation message.

4.1.8 Assign a review

Teacher can assign review by setting time for review the lab work. By button input all submitted lab work will be distributed among the students randomly. it will be anonymous for students but teacher can see which student is assigned for whom lab work.
Input: Input button
Output: confirmation message and redirected to see list of reviewed lab work

4.1.9 Check reviewed lab work

Teacher can check the lab work of any particular student after reviewed and see the reviewer students. Also teacher can make changes in feedbacks in lab work as a teacher review.

Input: user input
Output: redirect to selected student's lab work.

4.2 Student module

4.2.1 Login

Student will have to login before accessing the system.
Input: Student ID, password
Output: confirmation message and redirect to student module

4.2.2 View assignment

Student can view assignment uploaded by teacher.
Input: user input button
output: display assigned lab work

4.2.3 Queries in assignment

Student can ask query related assignment to the teacher and view queries asked by other students before submitting lab work.
Input: text input
Output: confirmation of query is sent to teacher.

4.2.4 Submit lab work

Student can submit lab work related to assignmet within deadline by uploading file.
Input: file input
Output: confirmation message when uploaded.

4.2.5 Review lab work

After teacher assign for the review, student can review each other's lab work anonymously. student can give feedbacks at any point in work by text. student will have an option of rate the lab work. If lab work is totally wrong or not meet certain criteria then student have option to report the lab work to teacher.
Input: user input, text
Output: confirmation of reviewed lab work and reviewed lab work is sent to teacher in backend and related student.

4.2.6 View feedbacks and reviewes

After reviewing process is over, student can view reviewed lab work of himself/herself and see feedbacks and rating.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

System shall be accessible on Google Chrome, Firefox, Safari, Opera and Internet explorer.
System shall be accessible 98% of the time. Database should be synchronized to cloud every 5 minutes

5.2 Safety Requirements

System should be safe and there shall be no loop holes data transfering.

5.3 Security Requirements

5.4 Software Quality Attributes

- **Flexibility:** System should be built flexible enough to add new features and integrate with external system
- **Integrity:** System should secure customer's details to avoid data losses and data manipulation
- **Usability:** System should be able to easily accessible by all users
- **Maintainability:** System shall be able to maintain easily at any point of time in future
- **Testability:** System shall be able to test and confirm all the specifications according to requirements.

5.5 Business Rules

System should keep track of each student's lab work review and it shall be seen by teacher.

6. Other Requirements

Appendix A: Glossary

Appendix B: Analysis Models

Appendix C: To Be Determined List
