

Software Requirements Specification (SRS)

for

< IIUM Course Repository Management System >

Version 2.0

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Revision History

Name	Date	Reason For Changes	Version
IIUM Course Repository Management system	5/7/2020	Initial versions	1.0
IIUM Course Repository Management system	24/7/2020	A slight change after the validation	2.0

1. Introduction

This section describes the scope and gives an overview of what SRS is all about and the documents that should be included in SRS. The purpose of this SRS is also stated as well as the steps, methodology, and tools used to describe this system

1.1 Purpose

The purpose of this system is to give a clear and detailed explanation or description of the requirements for this project entitled, “IIUM Course Repository Management System”. It will illustrate the objective and whole declaration for the development of this system. The system constraint, interface, and interactions with the other external applications should be included and explained as well as get the best picture of this particular system.

1.2 Intended Audience and Reading Suggestions

This document is intended to be read by the stakeholders of this project, either directly or indirectly such as project managers, developers, marketing staff, users, system testers, and the documentation writers. This SRS will also describe the overall process of the system developments, starting with the purpose of this SRS to the addition of other requirements, by means adding the other section of the requirements domain that has not yet been covered. This document is organized in a sequence manner. It suggests the reader read this document from the beginning that states the overview of this system and then proceeds through each section that is pertinent to readers.

1.3 Project Scope

The “IIUM Academic Course Repository Management System” is a proposed system where we will try to solve the general problems faced by the stakeholders such as lecturers, and the administration panel which is seeing all the relevant files and materials of a course in an automated online form. the system will help the lecturer and the academic staff to get all the necessary files in one place and also the external and internal auditors to have everything in one place. This system will provide such a platform where everything will be stored in one place like a platform and the authorized personnel will be able to see the course progress, will be able to give feedback and interact with each other.

1.4 References

1. IEEE Software Engineering Standards Committee, “IEEE Std 1233, 1998 Edition (Includes IEEE Std 1233-196 and IEEE Std 1233a-1998), IEEE Guide for Developing System Requirements Specifications, 1998.

2. Overall Description

This section describes in detail the proposed project by providing general ideas of project perspective. The functionality of this project will be included to present the capabilities of this project. In order to simplify the readers, the process will be in graphical and visual representation by using use-classes to map each process. The functional requirement for this project will be described first, before proceeding with the non-functional requirements. The list of appendices will be stated at the next section.

2.1 Project Perspective

Repository refers to a central place where all the data is stored and maintained. We need to have a repository system to maintain all the relevant files and documents regarding the subject. Which will help the lecturer and the academic staff to get all the necessary files in one place and also the external and internal auditors to have everything in one place. Till now there is no such system where everything of a course will be stored and the academic staff can observe them directly online with the interface, for instance with a progress bar that shows the completeness. So it is needed to build a system where everything will be stored in one place like a platform and the current progress such as course outline, rubrics, slides, materials, examination question and answers, exercise, assignments, attendance, notes can be shown easily.

2.2 Project Functions

- All the data uploaded by the lecturers will be stored and maintained
- Academic staff and internal and external auditors can observe the data directly
- Each user of the system can communicate among theme privately or publicly
- Reviewers can review the progress and give feedback
- System will notify the lecturers about the barring if a student misses a certain amount of classes during the semester after getting the warning letter.

2.3 User Classes and Characteristics

For our system, the target user classes are lecturers, internal and external auditors, H.O.D, dean, deputy dean, and general office and AQAL officer. These all users have direct and indirect interactions with the system. The lecturer will upload the files based on his/her course materials and then the auditors will review the course and will give feedback. The AQAL officer will maintain the quality of the system. H.O.D, dean and deputy dean will be in the administrator panel. They are the higher authority of the system.

Based on the users' perspective the lecturers, HOD and the auditors are the important users for the system.

2.4 Operating Environment

The platform that is used by the potential users is "IIUM course Repository Management System" website. The system will be operating when the users want to use the website at any time. However,

to interact with the system, users need to login using their own user ID and password to avoid unauthorized access. The website has its own mobile platform and web platform to ease the interaction and portability of the system. The website is supported by Mozilla Firefox, Google Chrome, Safari, Microsoft Edge. The system also has 24 hours monitoring.

2.5 Design and Implementation Constraints

There are no major design and implementation constraints for this project. However, the design and implementations constraints part will be explained on the boundaries of the system application.

- Constraint 1: The system must adhere to the rules and regulations of the university authority.
- Constraint 2: When uploading any files, lectures need to login using the user ID and password for clarification of the system and ensure authorized access. Without having any authorized access, users are not able to interact with the system.
- Constraint 3: The Reviewers need to give feedback based on the course materials and need to ensure that the lecturer and the authority can see the feedbacks
- Constraint 4: The development of the system must be developed by one semester within the allocated budget.

2.6 Assumptions and Dependencies

The system development team has come up with some assumptions in the early stage. The assumptions help the developers and users to have a better understanding to interact with the system.

Before using the system, we assume that the users have experience in online upload, delete and modify method and also have knowledge about communication through online platforms. The stakeholders are moderate computer users who are using the internet. We assume the auditors have basic knowledge about giving feedback in an online platform and have the experience to highlight specific files (if needed). The system operation part can be anytime of the day so no restriction in operation time.

3. System Features

This section describes the functional requirements that specify all the system features of the software system.

3.1 Communicate with the users

The system will allow the users to communicate privately or publicly through the system.

RQF_112: The system shall allow the user with ability to communicate among the other users privately.

RQF_102: The system shall allow the user with ability to communicate among the other users publicly.

3.2 Uploading, modifying and removing the files

The lecturer is the only user who will upload the course materials to be reviewed or viewed by the other users. That's why a lecturer can update, modify and delete the files anytime he/she needs.

RQF_116: The system shall allow the lecturer with the ability to upload the course timetable with consultation hours in the system.

RQF_117: The system shall allow the lecturer with the ability to remove the course timetable with consultation hours in the system.

RQF_118: The system shall allow the lecturer with the ability to modify the course timetable with consultation hours in the system.

RQF_119: The system shall allow the lecturer with the ability to upload the course outline and consultation hours in the system.

RQF_120: The system shall allow the lecturer with the ability to remove the course outline and consultation hours in the system.

RQF_121: The system shall allow the lecturer with the ability to modify the course outline and consultation hours in the system.

RQF_122: The system shall allow the lecturer with the ability to upload the attendance sheet in the system.

RQF_123: The system shall allow the lecturer with the ability to remove the attendance sheet in the system.

RQF_124: The system shall allow the lecturer with the ability to modify the attendance sheet in the system.

RQF_125: The system shall allow the lecturer with the ability to upload the assessments of assignments/projects in the system.

RQF_126: The system shall allow the lecturer with the ability to remove the assessments of assignments/projects in the system.

RQF_127: The system shall allow the lecturer with the ability to modify the assessments of assignments/projects in the system.

RQF_128: The system shall allow the lecturer with the ability to upload the lecture materials in the system

RQF_129: The system shall allow the lecturer with the ability to remove the lecture materials in the system

RQF_130: The system shall allow the lecturer with the ability to modify the lecture materials in the system

RQF_131: The system shall allow the lecturer with the ability to upload the sample assessments in the system.

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RQF_132: The system shall allow the lecturer with the ability to remove the sample assessments in the system.

RQF_133: The system shall allow the lecturer with the ability to modify the sample assessments in the system.

RQF_134: The system shall allow the lecturer with the ability to upload the CAM in the system.

RQF_135: The system shall allow the lecturer with the ability to remove the CAM in the system.

RQF_136: The system shall allow the lecturer with the ability to modify the CAM in the system.

RQF_137: The system shall allow the lecturer with the ability to upload the Course report in the system.

RQF_138: The system shall allow the lecturer with the ability to remove the Course report in the system.

RQF_139: The system shall allow the lecturer with the ability to modify the Course report in the system.

3.3 Highlight Specific file and visualize

The system shall allow the users to highlight any specific file he/she wants to, if there is any kind of issue on that specific file.

RQF_114: The system shall allow the auditor with the ability to highlight any specific file if the files have any errors or incompleteness, so that the lecturer can rectify or update.

RQF_115: The system shall allow the HOD with the ability to highlight any specific file if the files have any errors or incompleteness, so that the lecturer can rectify or update.

3.4 Visualize the progress

The System will give an opportunity to the users to visualize the progress of each materials.

RQF_103: The system shall provide a dashboard where the user is able to see the course progress percentage.

RQF_110: The system shall allow the internal auditors with the ability to visualize the progress of different materials which is given by the lecturers.

3.5 Search and filter option

RQF_108: The system shall allow the user with the ability to search their desired items using the course code or the lecturer's name.

RQF_109: The system shall allow the user with the ability to filter out their desired items and sort them according to the lecturer's name using the filter option.

4. Quality Requirements

4.1 Performance Requirements

RQQ_2: The system should require no training.

RQQ_4: The system should provide less than 5 seconds response time

RQQ-8: The system should have not more than 1-hour downtime within a year.

4.2 Safety Requirements

RQQ_5: The system should verify the user by using user ID and password.

RQQ_9: The system should allow the users with the ability to insert their details in the profile.

4.3 Security Requirements

RQQ_7: The system should secure all the information within the system.

RQQ_10: The system will prompt users so that they don't share their sensitive information like email and password.

RQQ_12: The system shall hide the sensitive fields (password), only showing 1st and last 2nd digits only.

4.4 Software Quality Attributes

Portability:

RQQ_17: The system should be implemented using web services and mobile applications.

Usability:

RQQ_2: The system should require no training.

Availability:

RQQ-8: The system should have not more than 1-hour downtime within a year.

5. Constraint Requirements

RQC_101: The system shall comply with the privacy policies of the university.

RQC_102: The user interface shall not contain symbols or graphics abusive for any culture.

RQC_103: When the user changes his/her password, the system shall validate that the new password is at least eight characters long and contains alphanumeric characters.

RQC_104: The system should automatically logout if the user is inactive for 5 minutes.

RQC_105: The system should provide the auditors with the ability to only view the contents.

RQC_106: The system should provide the Head of the departments with the ability to only view the contents.

RQC_107: The system shall be reviewed by the academic quality assurance liaison officers to maintain the standard of the system.

RQC_108: The system shall not take more than a semester to be developed.

RQC_109: The system shall be built within the given budget limit.

6. Business Rules

1.The system shall provide a cloud platform for users to manage their files.

2.The system shall provide the result while the carry marks will be updated by teachers.

3.The system shall provide the lecturer with the ability to calculate the attendance percentage with the help of the attendance sheet.

4.The system shall provide the lecturers to get the detailed contact information about the student from AMAD .

5.The system shall provide the lecturer with the ability to get the notification about the warning if a student misses a certain amount of classes during the semester.

6.The system shall provide the lecturer with the ability to get the notification about the barring if a student misses a certain amount of classes during the semester after getting the warning letter.

7.The system shall provide the lecturer with the ability to show the modification history of the uploaded files.

Appendix A: Glossary

AQAL: Academic Quality Assurance Liaison

Database: A storage for keeping data

H.O.D: Head of the department

SRS: Software Requirements Specification

Assumptions: a thing that is accepted as true or as certain to happen

Validation: the action of making or declaring something legally

Appendix B: Analysis Models

Context diagram

