

Lab Assignment # 04

Subject:

Software Project Management

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FA17-BSE-011-A

Topic:

SQA Plan for Library Management System

Date:

30th December, 2020

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SQA Plan for Library Management System

1. Purpose and Scope of the Plan

1.1. Purpose

The Software Quality Assurance plan's primary purpose is to ensure high-quality end software products according to the specific requirements stated. The Software Quality Assurance plan of the Library Management System launches the goals, processes, and responsibilities compulsory to ensure high quality and on-time delivery of the project. The results of the reviews and audits conducted in the Software Quality Assurance plan would be provided to the appropriate management of the project to track and assess the progress being made on the project.

1.2. Scope

The scope of this SQA plan is entirely bounded to the requirement, design, and development phases. Testing is out of scope for this article.

2. Description of Work Product

Library Management System will provide an electronic library to readers. It will be based on three modules:

2.1. User Module

The user module will deal with user-related activities. It will provide the following facilities to the users:

- Sign in/ signup on the system
- View books available in the library
- Request for a book if not available
- Search for books
- Borrow books that will be delivered to their homes
- Buy books
- Request for the pdf version of any book

2.2. Books Seller Module

The bookseller module is for the bookshops or retailers who sell the book. This system provides the following features for sellers:

- Register on the system
- Request for selling books
- Create their virtual presence for others to buy books from them.

2.3. Admin Module

Admin module deals with administrative tasks such as:

- Adding new books
- Issuance of books on users request
- Remove books if they are not available anymore
- Add/Remove users
- Add/Remove booksellers
- Maintain other data and logs

3. Applicable Standards

Following are some standards that apply to this system.

3.1. Documentation Standard

The IEEE standards are used as a standard for all the project documentation, which includes Software Requirements Specification (SRS) and Software Design Description (SDD) documents.

3.2. Coding Standard

The project follows the rules in the C# coding standards and style guide.

3.3. Commentary Standard

Comments are castoff in the scheme to give a transitory explanation of the code, which mainly focuses on the commented areas' functionality and purpose. Each block of statements will be

well-commented. Each humdrum will also have a comment, which will be positioned above the specific pattern.

3.4. Testing Standard

The IEEE standard for software test documents will be used for the this project

3.5. Metrics

The basic COCOMO model will be cast-off for the estimation of project time and effort.

4. SQA Activities

Following SQA Activities are carried out during the span of this SQA Plan:

- Inspections
- Walkthroughs
- Peer Reviews
- Audits
- Technical Reviews
- Quality Control
- Verification
- Validation

5. Tools and Methods/Standards Used

- C# for coding
- HTML for Coding
- JavaScript for coding
- IIS – for the webserver
- ASP.NET – for web forms
- SQL server 2000 – for the database server
- MS WORD 2003 – for documentation
- XML – for coding

6. Procedures for Managing Changes

- Review and Inspections are done to suggest and manage the changes. As of the audits and reviews conducted periodically, all the project documents will also undergo some technical inspections to ensure that the documentation's quality complies with the project.
- The developer of the development will give three official presentations, one at the end of each stage.
- The supervisory committee memberships will conduct periodic reviews on the project code and documentation and evaluate the developer's performance at the end of each phase. The committee members will also consider the software prototype at the end of each presentation and suggest changes that need to be incorporated into the project code or documentation.
- The two formal technical examiners of the project measure the architecture design artifacts and submit a formal report based on their observations. From these observations, changes are approved or rejected.
- Three copies of the design documents are to be produced. A softcopy of the whole source code, documentation, and web pages of the scheme project will be submitted to the major professor. A copy will also be reserved with the developer.

7. Methods for Maintaining SQA Related Records

Each phase of development will have at least one formal border called a stage exit. When a step has been magnificently exited, it indicates that all draft deliverables due to date have been completed, all outstanding issues have adequate action plans. There is a comprehensive plan for the remainder of the project. In this way, after every stage, these checkpoints maintain the records of SQA Activities in these stages.

8. Organizational Roles and Responsibilities

QA Manager: Manages the Quality Assurance function.

System Owner: Helps define product quality expectations.

QA Consultant: Audits and approves project deliverables from a QA perspective.

Project Manager: Ensures implementation of quality activities.

Supervisory Committee: Responsible for attending the presentations and submitting their reviews at the end of each phase.

FA17-BSE-011