Project Plan
Library Management System

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I.   Introduction

Scope and Purpose

The application is a book library web application which is the foundation of a library system designed for libraries and bookstores. The system will support the following online functions: view the stored books, add new book, update book's information, delete book, and search books in the library's database.

Overall System Scope

The application is implemented in a modern way and has two main modules, the front end (client) and the back end (server) and will communicate via HTTP requests specified in a RESTful specification that you find in the client directory. The front end is implemented using a Single Page Application (SPA) architecture, which means that no reload of the page is needed.

Project Motivation and Objectives

While you can add, edit, and delete books, the application's input will be done by the library staff. Our objective is to make the input easy, logical, and free from errors as much as possible, to ease the access to the books' database, and to show all the needed information of a book.

II.   Team Structure

The overall project responsibility, planning, analysing, designing, implementation, and the test will be done by one person

III. Project Tasks and Scheduling

Project Tasks

The following is a detailed list of the all tasks required for the Library System Project:

1. Analysis

   1.1 identify and document the use cases used in the system by using activity diagrams
   1.2 analyse the steps of a use case and validate the business logic for them by creating robustness diagrams
   1.3 Realize the use cases by using sequence diagrams

2. Create an iteration plan.
3. When the client requests a list of books by calling http://localhost:9090/api/books/to the server the answer will be as a JSON object

   3.1 Create a class "book" and method for setting and getting book's details

   3.2 Create a method to convert the book object into an JSON object and print it in the terminal

   3.3 Return the JSON object to answer the request in the web browser

4. Create a test plan and test cases.
5. Design a method to read a XML file, fetch the book in XML format, convert them into objects and lastly translate them into JSON for the web browser
6. Implement view a list of books use case and test it.
7. Implement add a book use case and test it.
8. Implement delete a book use case and test it.
9. Implement edit a book use case and test it.

Scheduling

The estimated time for this project is 8 weeks and the work started on Wednesday, February 1, 2017, as an assignment for the course Software Technology at Linnaeus University.

IV. Project Resources

Hardware: Dual-Core or above machines needed.

Software: Microsoft Windows XP installed or above operating system needed, a virtual machine managed via Vagrant.

V. Project Risks

- Important task missing from the schedule.

- Delays in the implementation, due to lack of experience.

- Change in the requiremets.