1 Project Overview

The software product that is being developed is a half-finished web application which is the foundation of a library system for books. The system can add books, modify the books, and remove the books. the system stack is implemented in a modern way and the two modules (the client and the server) will communicate via HTTP requests. The front end is implemented using a Single Page Application (SPA) architecture, which means that no rendering is done on server side all logic for the visual part is done locally and no reload of the page is needed. This also means that the border between back end and front end is very sharp, the only way to know how to communicate is to use the API. The application server is executed in a virtual machine that is managed via Vagrant, the client is executed in your web browser.

1.1 Project purpose and scope

the propose of the project is to create a system and insure that the system is functioning properly
and completing the partially implemented back end (server).
The scope of the project is to achieve:

- Create a book, modify a book, remove a book and search a book.
- Test the functionality of the system.

2 Management Plan

this section discusses the management plan of the project.

2.1 Project Deadlines And Objectives

the project development will be conducted through an iteration process approach.

iteration #	Objectives	Deadline
iteration 1	Create a book list and convert it to JSON object and view it in the web (local host API).	5/2/2018
iteration 2	Analysis,Design and Implmentation	19/2/2018
iteration 3	Announced later	Announced later
iteration 4	Announced later	Announced later

2.2 Resource Management

Management plan for the resources which will be used in this project.

Resource	type	Discerption
Developer	Human resources.	The one who is programing the system
Vagrant	Software, virtual machine	Software which runs virtual machine
ATOM	Text editor.	Software for edition java codes
Note pad ++	Text editor.	Software for edition java codes

2.3 Stockholders

1. User: a customer using the system for adding, removing or modifying a book.
2. Developer: create and test if its functionality of the system.

2.4 Risk Management

Potential risks and problems that might happen during the development process.

Risk type	Discerption	effects
Size underestimate.	The planning of the system has been underestimated. The time required to develop the software is underestimated Which can lead to delays.	**Effect**: Project. The project will be delayed because the planing was not prepared correctly **Risk** level: serious.
Software tool Underperformance.	Software tools that which are used to develop the project do not perform as anticipated. Code generated by code development tools is inefficient and incorrect. inexperience using vs code, notepad ++, vagrant	**Effect**: Project. Minor errors which could lead to a defect **Risk** level: high.
People	Staff are ill at critical times in the project development.	**Effect**: project. Delays or defect **Risk**: Serious

3 Development management

This section outlines the development process which is divided into four iterations.

3.1 Work Break Down Structure Of Iteration Number One.

3.1.1 Personal Planning, Vision And Project Plan

This iteration is divided into three tasks which will be our objective for iteration number one.

3.1.1.1 Personal Planning.

Create a book list and convert it to JSON object and view it in the web (local host API).

This task divided into additional three subtasks.

A. Subtask A books: Create a list of books.
B. Subtask B JSON: Convert the output to JSON objects.
C. Subtask C Web: Show the JSON objects output on monitor.

Associated milestone: 26/1/2018.

3.1.1.2 Vision.

Create a vision document for the system.

Associated milestone: 29/1/2018.

3.1.1.3 Project Plan.

Write a project plan for the project.

Associated milestone: 4/2/2018.

3.1.2 Iteration Number One Deliverables

Vision document: general documentation about the system specifications.

Project plan: plan of the project it describes the risks, resources and development process of iteration number one.

Implementation: the src code implemented for the program.

Report and personal reflection: personal planning and reflection on each iteration and task.

Time log: deadlines and time spent on each iteration, tasks and subtasks.

3.2 Work Break Down Structure Of Iteration Number Two.

3.2.1 Analysis

This iteration is divided into three tasks which will be our objective for iteration number two.

3.2.1.1 Identifying Use Cases

This task divided into additional three subtasks.

A. Subtask A Identifying Use Cases:Identifying use cases and documenting their event and create an activity diagram.
B. Subtask B Robustness Diagram: Create a Robustness Diagram.
C. Subtask C Use Case Realization: Sequance diagram which describe the case with more details.

Associated milestone: 13/2/2018.

3.2.1.2 Design.

Design a Sequance diagram which describe the ToXML in details.

Associated milestone: 14/2/2018.

3.2.1.3 Implementation.

Implementation of the Sequance Diagram.

Associated milestone: 16/2/2018.

3.2.2 Iteration Number Two Deliverables

Vision document: general documentation about the system specifications.

Project plan: plan of the project it describes the risks, resources and development process of iteration number one.

Implementation: the src code implemented for the program.

Report and personal reflection: personal planning and reflection on each iteration and task.

Time log: deadlines and time spent on each iteration, tasks and subtasks.

UML Diagrams: The activity diagrams , robustenss diagram and a sequance diagram from task 1 and the seuqance diagram designed for task 3.

4 Project Releases

Initial release	Version
5/2/2018	V 1.1
19/2/2018	V 1.2