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Project plan for library system

Introduction

The project is to build the backend for a working library system from a framework supplied by the course managers. The work started in the end of January 2018, and the project is due March 18th 2018, although there will be a fall-back option later on during the spring in case the project plan fails and the time-frame needs to be extended.

Purpose

The primary purpose of the project is primarily to learn the methodology for developing software, with focus on the planning, testing and documentation parts. The secondary purpose of the project is to build a working library system for personal use.

Stakeholders

The primary stakeholder in this project is the developer - the student working on the project, i.e. me. This stakeholder is affected by the success of the project in whether or not I pass the course, and eventually whether I get my teacher's license in Interface Design - which is the reason I'm doing this.

Other important stakeholders in this projects are the teaching staff for the course, being affected in the way that they want as many students to succeed as possible, with good results, and want their project to be percieved as educational, challenging and rewarding.

If this was a real library system project, the stakeholders would also be the customers asking for the system.

Scope

The scope of this project is limited to developing a working library system aimed at personal use rather than commercial, given that the functionality is limited to adding, editing, removing and listing books without adhering to any existing library conventions. The front end in this system is already provided, and so the project is limited to coding the back end.The time available is limited to January 15th 2018 - March 18th 2018.

Resources

Resources required for this project:

- Lectures provided by LNU for theoretical background
- Client side code provided by LNU, as well as skeleton for back end.
- Software Engineering 10th ed. by Ian Sommerville
- Project instructions on github

Project Goals

- Finish the project within time allotted
- Have a working product with the ability to add, delete, edit, list and search for books by title and author.
- Finish the project with enough quality to get a passing grade in the course.

Risk analysis

Risk	Probability	Effects
Crisis at work means I won't have time for studies	Moderate	Catastrophic
Crisis in own life means I won't be able to complete project	Low	Catastrophic
Illness means I miss study time	Low	Serious
Time allotted for study isn't enough to finish project	Moderate	Serious

Complexity of project is underestimated	Moderate	Tolerable
Complexity of other course demands I take study time from this project	Moderate	Tolerable
Computer breaks down	Low	Tolerable

Overall, the largest risks that I can see to me failing to complete this project is that my time will have to be devoted to my job instead of my studies - working full time as Lead Teacher at a school I've helped found means I tend to be the one having to jump in whenever something goes awry, and working with people, that tends to happen quite frequently. However, this time of year tends to be calmer that most, so hopefully I'll be able to only work full time and not more.

The other risks are that I have underestimated the complexity, or overestimated the time I can give to this project, but I count those as more moderate risks, since they can be mitigated by reevaluating and reworking the plan.

Work breakdown

Assignment 1

- Task 1: Personal planning

1. Subtask A: Books
2. Subtask B: JSON
3. Subtask C: Web

- Task 2: Vision
- Task 3: Project plan
- Submit assignment for review by 2018-02-04

Iteration goal

Have an understanding of what the product is and what the specific goals of the project are.

Assignment 2

- Task 1: Analysis

1. Subtask A: Use cases
2. Subtask B: Diagrams
3. Subtask C: Use case realization

- Task 2: Design
- Task 3: Implementation
- Submit assignment for review by 2018-02-18

Iteration goal

Have an understanding of system analysis and design, and design documents for a few of the functions to be implemented.

Assignment 3

- Task 1: Test plan
- Task 2: Test cases
- Task 3: Unit tests
- Task 4: API tests
- Submit assignment for review by 2018-03-04

Iteration goal

Have a plan for the testing of the product, and the first few tests in place.

Assignment 4

- Task 1: Planning

Iteration goal

Have a plan for the different iterations of the last stage of development, including the plan, design, testing and implementing of each interation.

- Task 2: Iteration #1

Iteration goal

Having designed, tested and implemented the search for specific book function, working with both title and author search options.

- Task 3: Iteration #2

Iteration goal

Having designed, tested and implemented the Add book function of the system.

- Iteration #3

Iteration goal

Having designed, tested and implemented the edit book function of the system, and tested that everything works from all previous iterations.

- Submit assignment for review by 2018-03-18

Project schedule

Assignment:Task	Start	Done
Assignment 1: Plan		
Task 1	2018-02-01	2018-02-02
Subtask A	2018-02-01	2018-02-01
Subtask B	2018-02-02 AM	2018-02-02 AM
Subtask C	2018-02-02 PM	2018-02-02 PM
Task 2	2018-02-01	2018-02-03
Task 3	2018-02-01	2018-02-04
Assignment 2: Design		
Task 1	2018-02-08	2018-02-09
Subtask A	2018-02-08	2018-02-08
Subtask B	2018-02-09 AM	2018-02-09 AM
Subtask C	2018-02-09 PM	2018-02-09 PM
Task 2	2018-02-08	2018-02-10
Task 3	2018-02-08	2018-02-17
Assignment 3: Testing		
Task 1	2018-02-20	2018-02-22
Task 2	2018-02-20	2018-02-24
Task 3	2018-02-20	2018-02-26
Task 4	2018-02-20	2018-02-28

Assignment 4: Project

Task 1	2018-03-10	2018-03-10
Task 2	2018-03-11	2018-03-15
Task 3	2018-03-15	2018-03-18

February 1st - 4th: Assignment 1.1-1.3

Monitoring

Revise and update plan every Sunday.

Task 1	2018-03-10	2018-03-10
Task 2	2018-03-11	2018-03-15
Task 3	2018-03-15	2018-03-18