[CS350] 2018-Fall, Team Project

Project #3. Sprint 1

Open: 2018-10-23 (Oct. 23)
Due: 2018-11-06 (Nov. 06)

In *Idea Proposal (Project #1)*, you have proposed an idea to develop an application using public data, and you also devised functional and non-functional requirements from a rough description. In *SRS (Project #2)*, you have made the analysis on use cases, domain, acceptance criteria, including non-functional requirements and preliminary user manual.

In *Sprint 1 (Project #3)*, stakeholders of your system want to see how the basic functionalities of the system will be implemented and how they work. In order to satisfy the stakeholders, you start the first sprint of your development project. Sprint is a short cycle of development, in which the team creates potentially shippable product functionality. In this *Sprint 1*, you need to complete the development of the most important and basic functionalities of the system. The results of *Sprint 1* should include basic UI for target users and your system should be runnable by the users. To do so, refine your analysis and design your system for providing those basic functionalities and UI. The implemented system must be validated by reviewing the requirements, which were defined at the beginning step of *Sprint 1*.

You need to include the following sections in your report:
(no more than **20 pages,** refer example file)

1. Title Page

Include the name of the document, team name, team members, date. You also prepare *Table of Contents* (including page numbers and so on) of your document.

2. Sprint Backlog

Write a quick description of the sprint goal. Then identify one or more user stories and requirements that support this goal and will be part of the sprint. Specify the tasks to accomplish the requirements, and map tasks to requirements that are covered by each task.

A. Goal

The goal of this sprint is a vision statement for this sprint, to communicate which parts of your 'product' you are going to develop.

B. User Stories

Elaborate one or more user stories that cover the goal of this sprint. They will show how users are going to interact with your product. Requirements can be found in some of user stories, specifying the needs of users.

C. Requirements

Sort out the requirements to achieve the goal of this sprint. You need to classify and number the requirements with tables like the following.

Functional requirements	
R. ID	**Description**
R.F.1	Customer can make a reservation
Non-functional requirements	
R. ID	**Description**
R.N.1	The response should be delivered within 1 second.

*The IDs of requirements can be freely specified, and you can change the format of the requirements table if needed.

D. Tasks

List the tasks which should be done in this sprint to develop an initial version of your system. Make a task model in the hierarchical form. Identify which requirements are achieved by which task, and map all the requirements to the task model. The following example could be your task model.

Task Model		
Task ID	**Description**	**Related Req.**
T.1	Build the development environment	-
T.2	Implement ‘make a reservation’ functionality	R.F.1
T.2.1	Imple. ‘Retrieve the available room list’	R.N.1

*A task can be related to more than one requirements.

3. System Design

A. System Architecture

Provide a blue print of your system with the structure and the relationships between system components. Any architectural format can be used.

B. (Refined) Use Case Diagram & Description

Refine your use case diagram (1 diagram) and description (3 descriptions) that you defined in *SRS*. Highlight the refined use cases in the diagram in red.

C. (Refined) Sequence Diagram

Draw refined sequence diagrams (3 diagrams). Design the interactions based on your team’s design/development patterns and styles.

D. (Refined) Class Diagram

Design classes for the implementation of your system, and draw an UML class diagram based on Domain Model in *SRS*. Brief description for each class is required.

4. Sprint Review

A. Achievements

Make a self-check of your achievement at the end of the sprint. You need to include (a) *task achievement* in the form of check list, to show how much your team achieved the original plan you made at the beginning of the sprint. You also need to include (b) *requirement validation* (testing) for each requirement listed in ***2-C*** based on the acceptance criteria of *SRS*.

Requirement validation must include 1) test input, expected output, actual output and test result for functional requirements, and 2) goal, actual output, satisfaction result, and reason why it is satisfied or not, for non-functional requirements.

B. Demonstration

Show your implementation results with screenshots. Put remarks of requirement IDs on related screenshots. Please follow the order of your team's user story (***2-B***).

C. Development Environment

Describe the environment for development and testing. It may include programming language, used platform/framework (and its version information), desktop & server information, and so on.

5. Roles & Responsibilities

State roles and responsibilities for each member of your team in a table.

A team manager, please explain how you managed sprint 1 of your project. Explain briefly any tool, planning, strategy, schedules, and motivating method you used to manage, promote and accelerate your progress. Write your name also.

Elect a new manager for Sprint 2 and write his/her name.

6. Acknowledgement

Include authors of this document by section.

[Scoring criteria]

- **Agile plan design:** sprint backlog
- **Completeness**: requirements, use-case diagram, user stories, sprint review
- **Consistency**: requirements, use-case diagram, sequence diagram, class diagram
- **Design skills**: system architecture, class diagram, sequence diagram
- **Implementation results**: runnable system

[Submission files]

Please submit below files at Sprint 1 submission tab, KLMS by team.

1) Source code: Please submit ".txt" file that has your Github repository link or ".zip" file of your project. You may include an executable program or URL link of executable website (in case that your system is a web-based app).

2) Sprint1 document

*After the submission, a *consulting session* will be held by TAs.