IT076IU – Software Engineering
Sep 2015

Assessment Task 2: Project Assignment

Due date: 5:00PM 27th Nov 2015
Weighting: 20% of final mark

Objectives
This assessment task addresses the all objectives in the subject outline

Overview

In this assignment, you will

- Study an topic, e.g. an e-commerce website
- Study SCRUM to manage this project
- Apply a software development process
- Use UML and programming tools for analyzing, designing and implementing a software system
- Build team management and communication skills

1. Project plan (15pts): intro., scope (sys framework), plan…
2. Product backlog, sprint backlog (5pts). Refer to SCRUM
3. Requirement specification (40pts). Refer to Figure 4.7, page 93 in the textbook
4. Design (20pts): ERD, Sequence/Activity, Class diagrams
5. Implementation (20pts): UI, test cases, program (Source code)

Step 1: Analysing requirements and planning

Students should have group meetings to make a project plan. As a result, the outcomes of this step are a product backlog, a project plan document and sprint backlogs as well. Project plan document (1) should include the following contents:

1. Overview
2. Goals and Scope

    2.1. Project Goals

    2.2. Project Scope

        2.2.1. Included

2.2.2. Excluded

3. Organization
   3.1. Organizational Boundaries and Interfaces
        Resource Owners, Receivers, Suppliers
   3.2. Project organization
        Project Manager, Business Analyst, Software Engineer, Tester

4. Resource requirements
   4.1. Hardware resource
   4.2. Software resource
   4.3. Human resource
5. Schedule
   5.1. Work Breakdown Structure
   5.2. Schedule and Milestones
   5.3. Development Process (optional)
   // Will get some extra marks if applied properly
   5.4. Development Environment (optional)
   // Will get some extra marks if applied properly
   5.5. Measurement Program (optional)
   // Will get some extra marks if applied properly
6. Risk Management
7. Delivery Plan
8. Security Aspects (optional)
9. Abbreviations and Definitions
10. References

Step 2: designing the system

In this step, a requirement specification document (2) should be completed. Its structure is referred to Figure 4.7, page 93 in the textbook.

A design document (3) should be prepared and include the following contents:

- System Architecture

- Data Flow Diagram and ERD
- Or Sequence/Activity, Class diagrams

Some UML tools might be used to draw diagrams.

Step 3: implementing and testing

Some test cases should be prepared and documented (4). Test case template are provided in a separate handout. A user manual document (5) might be done.

Submission

Compress all files and name with your group number and member names. For example, group 1 includes members A, B, and C → Folder/compressed file name is G1_A.B.C.

Your project folder structure should look like this:

```
yourGroup_TutorialClass/
        |--------- reports.pdf
        |--------- code/
                | -------- database creating script (database backup)
                | -------- program files
```

E.g. Group01_FriLab: Group 01 in Friday Lab

Please compress your files into one file, then submit your assignment through the Blackboard IU. Please upload documents (1), (2), (3), (4), and (5) in pdf files to the Blackboard separately as well.

Congratulations, you just finished the SE project assignment of IT076IU!

Presentation

Your team needs to prepare a presentation of 20 minutes duration, to be delivered in your tutorial class in week 13.

The presentation should include: Introduction, specified requirements, design models, and a demo.

By the end of your presentation, you should have a conclusion of what you learn from this course.

Marking Criteria

Criteria	Weight (%)
Analysis	25
Planning	5
Design	25
Architecture	5
Implementation	25
Testing	5
Overall quality and presentation	10
Total	**100**