

IT076IU – Software Engineering

Jan 2016

Assessment Task 2: Project Assignment

Due date: 8:00AM 19th Dec 2016

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

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 (1). Project plan document 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

// A Product backlog should be included here
 - 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

// Sprint backlog should be included here.
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 (or Activity diagrams) 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

Follow the instructions of project assignment submission on the Blackboard IU.

Please name your files with your group name, member names and the corresponding parts. For example, group 1 including members A, B, and C submits a document for part 1 → the submitted file name is G1_A.B.C_p1.

Please upload documents (1), (2), (3), (4), and (5) in pdf files to the Blackboard separately as instructed.

Source code files are compressed into one file before submitting. The compressed file should include:

- | ----- database creating script (database backup)
- | ----- program files

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 15.

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

Task/Deliverable	Weight (%)
Analysis	25
Planning	10
<i>Review 1</i>	5
Design	25

Architecture	5
<i>Review 2</i>	5
Implementation (database and program)	10+
Testing	15
Overall quality and presentation	10
Total	110