Masters of Computer and Information Sciences

Software Requirements Engineering 409220
Semester 1, 2015

ASSIGNMENT 2
Case Project (in pairs)
Contribution to final marks: 85%

Due dates:

Project completed by the class in Week 11

Submission Requirements:

Trello (trello.com) will be used to manage the product requirements and documentation requirements for this assignment.

All documents should be submitted through Blackboard in a format appropriate to the document and a high standard of presentation.

Purpose of Assignment
This assignment relates directly to the following course learning outcomes:

- *Critically evaluate current research and practice across the full range of software requirements engineering activities*

- *Justify the choice of techniques appropriate for a given context across the full range of software requirements engineering activities*

- *Identify commonly used industry standards and other good practice documents and incorporate these in software requirements activities*

Background and Aim

You are the requirements analysts hired to discover and manage the requirements for a team using Agile software development techniques to develop a software product. You will be assigned a Product Owner who will explain the project and will be available to answer questions from time to time throughout the project.

You will be expected to use a variety of requirements engineering techniques and documents to discover, specify, analyse and verify the requirements.

In order to consolidate your learning from this project, you will be asked to reflect on the RE techniques used in your Case Project.

Some of the documentation you may be asked to produce for this project are:

Milestone	Deadline
Stakeholder Analysis	Wednesday noon Week 5
Personas	Wednesday noon Week 5
Scenarios	Wednesday noon Week 6
Use case diagram	Wednesday noon week 7
Use cases	Wednesday noon week 7
User stories with Acceptance Tests	Continuous (week 5 –week 10)
Business process diagram	Wednesday noon Week 8
Sequence diagram	Wednesday noon Week 9
Non-functional (quality) requirements	Wednesday noon Week 10
Story Map	Wednesday noon Week 10
Burndown chart	Continuous
Screen mock-ups	Continuous

Delivery of these documents should be included on Trello as story cards with acceptance criteria during the project.

The Case Project

The product that is to be developed is a web site called JobMatch that allows service providers to be matched up with people who want a job done (service seekers). The service seekers may need the services of a tradesperson (like a plumber), a professional service (like a lawyer), or just casual labour to do some weeding of their garden or babysitting (for example). The main benefit of using the site for service seekers is that they can find high quality service providers because we will screen the providers and they will all be reviewed by previous clients. It will be a one-stop-shop for many common services so service seekers can get all their needs met through JobMatch. The service seeker can also specify how much they are willing to pay and have service providers accept this or not. Or the service seekers can describe a job and have service providers quote for it. The service seekers cannot browse service providers. They only see responses from those service providers who respond to their request for a job to get done with a quote or agreement. They can check the reviews and previous work of those service providers who respond, and select the one they want. We will also add value to the service seekers by asking for information that will be relevant to their job, based on the information that service providers say they need. This will speed up the process of job matching.

The value to the service providers is that they will find new jobs to do. They can search for jobs that relate to their service and respond to them and ask for some further information (through our website), but cannot make contact directly with the service seekers. We will add more value to the service providers by providing a credit check on service seekers for big jobs (over $1,000), offering invoicing services, and having loyalty schemes.

The service providers will pay JobMatch a small fee to host information about them that the job seekers can see (reviews, examples of previous work etc…no contact details). They will also pay a

percentage of the agreed value of the job. The service seekers will pay nothing to list their job but will pay a smaller percentage of the value of the job if it goes ahead.

Instructional Video (15%, 5-10 min) Due week 6 lecture

Since you are an expert in the area, you have been asked by your Scrum Master to put together an instructional video on using a physical user story board in the work area to manage requirements. This will be shown to any new people who may join the team and are not familiar with user story boards. The video should be around 5 minutes long and no more than 10 minutes. It should cover the following points that the Scrum Master thinks is important for novices to know. Showing the "life" of a user story on the story board through acting out some brief scenarios would be one way to approach this.

- Where the "stories" on the user story cards come from and what information is on them
- How the user stories are estimated and prioritised and divided into iterations
- How progress on implementing user stories is monitored
- What columns are on the board and what they mean
- What is the big issue with defining "done" for a user story
- What other information may be on the story board (product backlog, sprint backlog, sprint goal, definition of done etc),
- How bugs are treated on the story board
- What happens to stories that fail a test
- What the burndown and burnup charts are and what purpose they serve
- Who can move stuff on the board and when
- How stories are allocated to different team members on the board

NOTES:

1. Consider how to show in your video how user stories and the story board feature in meetings such as story workshops, story elaboration meetings, sprint 0 planning, sprint planning, story estimation meetings, sprint prioritization meetings, daily standups, retrospectives, etc.

2. Do NOT simply go through these bullet points linearly in your video, but make sure this information is covered in the video "story".

Reflective Presentation (10%, 5mins) Due week 11 lecture

To help consolidate your learning it is useful to reflect on the things you learned and the things you found challenging. You should present a brief summary reflecting on your learning that answers the following questions:

- What went well and why?
- What didn't go well and why?
- What would you do differently and in what way, if you could do it again?
- What is the most important tip you would give a new Requirements Engineer?

All members of the group should participate.
You can use presentation software like Powerpoint if you must.
You will be stopped at 5 mins, so make sure you time the presentation.

Marking Criteria
Assignment 2 is worth 85% of your final mark

Documentation (60%)	
Stakeholder Analysis including Personas	5
Scenarios	5
Use case diagram	2.5
Use cases	2.5
User stories with Acceptance Tests	10
Business process diagram	10
Sequence Diagram	5
Non-functional (quality) requirements	5
Story Map	5
Burndown chart	5
Screen mockups	5
Use of Trello (15%)	
Setup usefully	
Used regularly	
5-10 minute Instructional Video (15%)	
Video includes accurate, useful and creative demonstrations of the use of user stories and story boards	
Content covers the areas specified by the Scrum Master	
Video flows well and demonstrates a high standard of presentation	
Keeps to the time limit	
5 minute Reflective Presentation (10%)	
Covers the required content	
Good standard of presentation	
Keeps to the time limit	