Business Modelling

Assignment 2 – 25%

Deadline date: Monday 24th November 2014 – 10am

Please read submission details and deliverables carefully.

This assignment is a group project with each group having *3* members. Please email me your group by **5pm, Monday 20th October**. Those who are not part of a group by this time will be randomly placed in a group.

The aim of this assignment is for you to perform business modelling on an organisation to highlight the current operation of the business and from this, to propose a new (or updated) IT system that you feel would bring competitive advantage to the organisation. Requirements engineering should be performed on this new proposed system. You will also execute several of the common processes associated with the Waterfall *and* Scrum system development lifecycle methodologies.

Submission Details:

There are two parts to the submission. Please read the instructions carefully.

1. Each *group* must submit all documentation including diagrams, product and sprint backlogs, presentation, and any other relevant material. *One* member of the group should do this by email to **shiulun.tsang@dit.ie** no later than **Monday 24th November, 10am**. Please use the following text as the subject line for your submission email: *"BM Assignment 2"*.

2. Each *member* of the group will also be required to (confidentially) submit by email, an account of:
    a. How they think the project went.
    b. What they performed in the assignment.
    c. How they feel they performed in the assignment.
    d. How they would rate the performance of the other members of their group.

   Each member of the group should submit this individually by email to **shiulun.tsang@dit.ie** no later than **Monday 24th November, 10am**. Please use the following text as the subject line for your submission email: *"BM Assignment 2 – Individual Report"*.

While tasks can be broken up between group members, it is important that knowledge used for each part is shared among the group. Students will be marked both as a group (20%) and as individuals in the group (80%). Therefore it is in the interest of each member of the group to contribute effectively.

All text and diagrams must be your own. Late submissions will not be accepted.

Assignment Deliverables:

The first task involves each group choosing a *project manager* who will chair group meetings, ensure progress is being made, mediate if disagreements arise, document any issues and decisions that are made, coordinate the production of the documents and presentation, submit the project on the group's behalf. From a Scrum perspective, this person will be the *product owner*.

Using the research that the group completed for assignment one, choose one of the organisations that your group feel would be a good candidate for business modelling and requirements analysis (note that you do not have to use the improvements suggested in that assignment). Once this decision is made, it will be up to the group to decide on project roles and equally divide up the workload so that the following tasks are completed. It should be noted that tasks are to be shared by group members (aside from the task of being project manager).

The following deliverables should be submitted as part of this assignment:

1. A Feasibility Report describing your domain analysis. This report should contain:

    a. A short description of the current operation of the organisation indicating why it was chosen over the other candidate organisations.

    b. A business model together with textual descriptions of the actors, workers, stores, use cases and non-standard relationships showing the current operations of the organisation. (This model may have more than one use case diagram).

    c. An indication of what section of the organisation is going to be automated with a new (or updated) IT system and a justification for this. This justification should be presented as a business case. This business case will contain the benefits the IT should bring to the company. All facts and figures should have some evidence of research.

    (15 marks)

2. A Statement of work / requirements document (as required for the Waterfall methodology). This should contain:

    a. A list of requirements for the new system (these requirements should be backed up by evidence of research).

    b. A requirements model of this new proposed system including textual descriptions of the actors, use cases and non-standard relationships. (This model may have more than one use case diagram).

c. An indicative project plan showing the duration estimates of tasks to be carried out and proposed delivery milestones. This plan should be produced based on accurate estimation and prioritisation of tasks.

d. Relevant UML diagrams showing the architecture for any aspect of your proposed system. You should include at least one of each of the following: Class diagram, activity diagram, sequence diagram, and statechart diagram.

(40 marks)

3. A product backlog and sprint backlog for the first two sprints (as required for a Scrum methodology. This can be broken down into the following deliverables:

a. A product backlog showing the list of user stories to be completed. This should be aligned to the list of requirements from the *statement of work* above. Each user story should include an associated duration estimate.

b. A sprint backlog for the first two sprints. This will show the prioritised list of user stories to be completed first.

c. A burn-down chart for each sprint. This will be indicative of the progress and velocity of the development team.

(30 marks)

4. A PowerPoint presentation to present the main points from the work produced. The first slide of the presentation should introduce the members of the group and the roles that they undertook. The presentation should take no longer than 15 minutes and will be presented by the group to the class.

(15 marks)

5. A short project overview containing information on the group members and the tasks for which they were responsible.