DIT045 Assignment 2

Fall 2017

Submission Instructions

Assignments must be handed in through GUL to A2 under Assignments. The final assignment should be submitted in PDF format. You may submit up to two files: one for the written part of the assignment, and one file for the prototype. Note, if your prototype is just pictures, submit it as part of the main PDF file.

For groups of 2-3, only one member per group should hand in the assignment.

Cover Page (3 points)

On the cover page of your assignment include the following information:

- The name of the course
- The date
- Your group name
- Your group members
- Which Problem Domain was selected
- The number of pages in the assignment

Assignment Due Date

Friday December 1st, 18:00

Late Policy

Up to One day late: - 20% of final mark
Up to Two days late: - 40% of final mark
Two or more days late: 0%

Group work

This assignment must be completed in a group of 2-3. Please work in the same group as in the previous assignment, unless you have special permission to change groups. Indicate the group name on your cover page.

All assignments must include a group evaluation form, found in GUL. This must be included as the last page of the assignment and filled out by all group members.

Continue with the Same Problem Domain

In A1, you have picked a Problem Domain (exemplar). Work with the same problem in this assignment. This assignment will built upon the work you did in A1.

Part 1: Further Requirements Elicitation (65 points)

1a: Elicitation Techniques (9 points)

In Lecture 6, you've learned about several techniques for elicitation. Think about your selected problem domain. If you were going to elicit requirements from the stakeholders, which techniques would you use and why? Which stakeholders would be involved in what techniques? How would you select stakeholders for participation in elicitation? In A1, likely you focused your requirements analysis on a particular set of stakeholders and particular functionality. Try to pick a selection of stakeholders and techniques which would give you a good coverage over your area of focus. Answer this question via text (which could include tables and lists). Expectation: up to a page of text.

1b: Personas (13 points)

For your chosen case, create two personas who represent target users. Fill out the details of the personas as per Lecture 8. Use these two personas to come up with additional requirements, specific to the particular needs and characteristics of the personas. Come up with 5 new requirements beyond what was in A1. Submit these requirements in either SRS or User Story format. The new requirements can be functional, non-functional, or constraints. Indicate from which of the two personas your new requirements came. Expectation: two personas, list of five new requirements mapped to one of two personas.

1c: Scenarios (16 points)

Pick two use cases from A1 (you may change or correct them if you need). For each, fill out Cockburn's Use Case template (link on GUL). Flesh out the details of the process, including exception cases, and error cases. Consider prerequisites. From these two scenarios, try to extract five new, not-yet-considered requirements. Submit these requirements in either SRS or User Story format. Indicate from which of the two use case templates your new requirements came. Expectation: two filled use case templates, list of five new requirements mapped to one of two use cases.

1d: Creativity Techniques (18 points)

Divergent Creativity: First, conduct a general brainstorming session with your group (see http://becreative.city.ac.uk/details.php?id=5). Remember, there are no bad ideas (yet). Then, pick two of the creativity techniques from Lecture 7 and/or from the BeCreative site. Conduct these techniques within your group. Each techniques should take at least 20 minutes. Collect ideas for each technique on post-its (or equivalent). Ideas can be cumulative (i.e. build on ideas from the previous creativity session). When conducting the activities, you can either perform the activity manually (e.g., assumption busting is done manually) or can use a creativity tool (e.g., Bright Sparks, Creativity Triggers, or any of the creativity techniques in Creative Leaf). Submit a list of new ideas for each of the three activities (either write them out or take readable picture of the post-its). Try to generate at least five ideas from each technique (you could come up with many more). Expectation: three lists (or pictures) of ideas indicating from which activities the ideas were derived.

Convergent Creativity: Consider all the ideas from the previous step. Pick the five best ideas and turn them into five new requirements for the system (either SRS or User Story form). Note that the mapping between ideas and requirements is likely not one-to-one (one idea may need to be expressed in multiple requirements). The five new requirements can cover some of the ideas, or all of them. Indicate from

which ideas the requirements came. Expectation: list of five best ideas, five new requirements in SRS or user story form each mapped to an idea.

Reflect: Which activity did you like the most? The least? Why? Write a 1-2 paragraph answer.

1e: Prioritization (9 points)

You now have 15 new requirements for your system. Which are the most or least important? In what order should they be implemented? Use one of the three prioritization techniques in the lecture (cost vs. value, $100 method, or AHP) to prioritize the new requirements. Note: if you pick AHP, pick only the best five requirements to prioritize. Expectation: submit evidence of the process and results, e.g., the chart and resulting list, or the $100 method table, or a copy of the matrices and results for AHP (hint: take a screenshot or print the results of an online tool). Make sure what you submit includes the final ordered list of requirements (note: as the requirements are numbered, use the numbers in your process and final list instead of rewriting the requirement). Ties in priority are OK.

Part 2: UX Design (49 points)

2a: UI Prototypes (51, 17 per screen)

Submit prototypes of three screens or views for your system. You may use whichever prototype tool or method you like (paper, digital, HTML, whichever tool for digital). Note: you'll need to work on these more for A3, so make sure whatever tool you use does not expire before Dec. 22nd (!)

Begin to apply the patterns from the Tidwell book. For each screen, try to apply at least two patterns. For each screen, indicate which patterns are applied and why (one paragraph per screen).

The dynamic nature of the screens should be somehow clear, e.g., if I click here, what happens? You can do this either by writing notes or arrows on the pictures of the various prototype screens, or via a dynamic PDF with clickable button/links (i.e. as many of the tools would produce). For paper prototypes, you may need to submit more than one picture of each screen, if, e.g., there are sub-menu or popups that appear. As you are submitting only three screens, not all of the buttons/menus have to have corresponding actions/screens (yet), but there should be a decent coverage of available actions (i.e., buttons, menus, etc.). Eventually (A3) the prototypes will have to be complete.

Expectation: prototype with three screens (and possible menus, pop-ups), list of patterns used, rationale for patterns used.

2b Mapping to Requirements (15)

The prototypes you've designed in 2a should map to/satisfy some of your requirements (either the A1 requirements, or the new requirements found in A2). List each requirement satisfied/implemented by a screen and say briefly (one sentence) how it's satisfied.

As there are three screens, you should be satisfying at least three requirements. However, as each screen likely does more than one thing, you may be satisfying more than three. List all requirements satisfied by your prototype designs. Expectation: for each screen, list of requirements satisfied with short description of how.

Grading Criteria

Techniques

Follow the instructions given for the particular techniques. If the instructions are unclear, ask a question in the discussion forum.

Requirements

Follow instructions in terms of number and type of requirements. Keep in mind the qualities of good requirements for both SRS requirements and user stories. Use the correct format for user stories. Points are given for writing style, including grammar, punctuality, spelling, and readability.

Reflections (Text Answers)

Credit is given for answering all the questions. To get full marks, answers must be clear, thoughtful and not obvious (i.e. not something mentioned in the lecture slides). Points are given for writing style, including grammar, punctuality, spelling, and readability.

Prototypes

Prototypes should be neat, readable, and easy to understand. It should be fairly clear how the screen is used, and how it satisfies the listed requirements. Transitions between the three screens should be clear. We should be able to view the screens and move between them (if prototype is not paper). Prototypes should use at least two patterns per screens. The use of patterns should make sense, be a sensible pick for the functionality of that screen, and not just be picked at random. The patterns should be applied correctly.

Total points: 114