

Requirements Analysis and Specification (COE691)

Lab 2

Due the Week of Feb 26, 2024 (In Your lab Session), Late submission will not be accepted

Objectives

Review Stakeholder analysis, Requirement Elicitation, and Requirement Quality.

Overview: (10 points)

Option #1: Design a mini-case study of IT project of your choice, examples are varied across different fields, your mini-case study could be designed to cover any of the following areas:

- 1- IT in Healthcare, e.g., an online platform to enable automatic diagnosis of diseases, patient social networking, etc.
- 2- IT in eCommerce, e.g., online flower shop, online grocery store, etc.
- 3- IT in agriculture, e.g., software for lawn detection, automatic soil monitoring, etc.
- 4- IT in transportation, e.g., software for autonomous driving, emergency services, etc.

The narrative of your mini-case should not exceed 2500 characters (with spaces). It should be written in font Arial with size 11 and single spaces.

Option #2: Select a case study from the following list and define the rationale of your choice (do not forget to cite the adopted case study in your report).

- <http://bit.ly/PMI-mini-cases>
- <http://bit.ly/dpm-cases>

In either option, perform a complete stakeholder analysis and requirements as follows:

Part I: Stakeholder Analysis (15 points)

1) List all the stakeholders that can influence the research project, save this information in a stakeholder register.

- It may be individuals, types of people, departments, teams, organizations, groups, and networks.
- Categorized according to groups – e.g., government, research, healthcare providers, media, donors
- Most relevant and well-known actors
- The level of detail depends on how specific the objectives of the project are

2) Map all stakeholders onto an interest/power matrix

Draw the axes of the interest/power matrix on a large sheet of paper and place the position of each stakeholder on the matrix: their absolute position is less important than their positions relative to each other such that:

3) Identify the key primary and secondary stakeholders?

Part II: Requirement Elicitation using Questionnaire (20 points)

Build a **questionnaire** to collect requirements, the questionnaire must contain different types of questions (e.g., open-ended, close-ended, compound, leading, and Probing). Among the primary stakeholders identified in **Part I**, pick three stakeholders of high interest and high power and send the questionnaire to them to elicit the requirements of your project development. The outcome of this phase is an elicitation document with all elicited requirements.

P.S.: you can send the questionnaires to your classmates, friends, family to elicit the required requirements with the assumption that they are acting as the primary stakeholders in your project.

Part III: Functional and Non-Functional Requirements (10 points)

Build an elicitation note (based on the **questionnaire** from Part II) as a document file structured into two sections. Section 1 identifies all the functional requirements. Section 2 lists all of the non-function requirements stated by the stakeholders in Part II.

Part IV: Quality of requirement (10 points)

Identify the quality of each of the stated requirement in the elicitation note (Part III). Your assessment should be based on the equality metrics discussed in class (e.g., complete, clear, non-duplicate, ...etc.)

Submit your lab

On the D2L, Folder Assignments, Lab2, submit the following in one file:

- The mini-case study
- The stakeholder analysis including the stakeholders register
- The questionnaire
- The elicited/ gathered requirements
- The elicitation notes with identification of functional and non-functional requirements
- A quality assessment table addressing the quality of each requirement in the elicitation note
- Save your work as a .pdf file and upload it by the due date. This is individual work; no group work is allowed. **A software for plagiarism check will be applied on each submitted work. Please get yourself familiar with Ryerson's plagiarism policy.**
- **Do not forget to add a cover page with your name and ID in the report.**