WESTERN UNIVERSITY - CANADA
FACULTY OF ENGINEERING
DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING

SE2203b –Software Design

Assignment 2

Due Date: Feb 28th , 2020

1 Overview

Use case modelling in its fullest form is an excellent way of describing the functional requirements of a software system. Use cases themselves also provide a convenient location for recording most non-functional requirements.

This is an individual work assignment, student will build a complete use case model for the iCLINIC system comprising actors with descriptions, use cases with descriptions and a use case diagram.

2 Goals

At the end of this assignment, you should be able to:

- Create and maintain a project workbook.
- Start a glossary.
- Understand the business and system requirements from an informal problem statement.
- Identify and describe system actors and use cases.
- Compose a use case diagram.
- Develop a GUI prototype containing a Menu for iCLINIC Desktop functionalities.

3 Assignment works

3.1 Question 1 - Creating a project workbook

Consider the provided template word doc and rename it by replacing the general term "yourUWOID" with the your UWO username. Also modify the document header, footer, and file properties to reflect the document identity. This document file will contain all the official documentations of your works during this and the coming SE2203 assignments, so that you, the instructor, and your TAs will always know where to look for the latest detail on your submission.

As the work progresses, you can add new sections to your workbook, or update existing sections. Don't delete any sections – it's useful to maintain a history trail. Ideally, we would like the maintenance of the workbook to be automated as much as possible – using tools like MS Visio or MagicDraw. If your tool doesn't export the diagram as image type, simply take a screenshot by using Windows snipping tool or by pressing PrtSc button and then add it as an image in your Workbook.

MS Visio can be installed in your laptop for free, the following link includes the download and the installation instructions:

https://knowledge.eng.uwo.ca/assets/HowtodownloadsoftwarefromtheAzureStore.pdf

3.2 Question 2 - Adding workbook sections for iCLINIC general term (Glossary)

Every time a piece of business-specific jargon crops up, add a short description of it to the glossary section that has been added in your workbook. Also, every time you discover a synonym for an 'official' term, add that too.

The Glossary defines important terms used in the project. There is one Glossary for the system. This information is important to many developers, especially when they need to understand and use the terms that are specific to the project. The Glossary is used to facilitate communications between domain experts and developers.

3.3 Question 3 – Identifying system boundary – the scope of the system (assesses the PA1 CEAB indicator)

You have given a problem statement in the form of a case study document (see Appendix A). Read this document now and make sure that you understand it. We will always refer to this appendix as the assignments progress; remember that you are not the iCLINIC client. So don't make any assumptions about the client's business, instead, ask them! (Dr. Ouda will be happy to play the role of the iCLINIC client).

Add 'iCLINIC System actors' if it is not added already.

- **Identifying system actors**
  - Produce a list of candidate actors for iCLINIC.
  - Write a short paragraph description for each iCLINIC actor.

Add 'iCLINIC System use cases if it is not added already.

- **Identifying system use cases**
  - Decide which use cases iCLINIC must support.
  - Provide a short paragraph description for each use case.

3.4 Question 4 – Developing the system use case diagram (assesses the PA2 CEAB indicator)

Add 'iCLINIC System use cases diagram if it is not added already.

- **Showing the whole system in a use case diagram**
  - Draw a diagram showing all iCLINIC actors outside the system (the system is shown as a rectangle) and all the use cases inside. Connect the actors to the use cases in which they are involved.
  - Can you spot any opportunities for 'include', or 'extend' relationships between your use cases? Could you build relationships by introducing some new use cases? If you can see ideal opportunities for introducing new use cases or relationships, do so now. But try not to introduce too much complexity just for the sake of reuse.

3.5 Question 5 - Developing your first prototype of iCLINIC (assesses the ET2 CEAB indicator)

Now this is the time to implement what you have learned about Java and JavaFX during the lab activities. You are required to developing a simple IntelliJ JavaFX project called "iCLINIC" that has one simple form with the following requirements:

- The main form is a simple BorderPane layout with a background showing the provided Western logo. See Figure 1.
- The main menu of this form includes the following top-level menu items:
  - File – has a sub-menu item "Close", by clicking his option the application stops. See Figure 2.
  - About -> About Us – by clicking About Us option a pop-up window appears showing the application name and the copyright. It has OK button to close the window. See Figure 2 & 3.
  - Based on the iCLINIC system functionalities you have identified, add a proper set of menu items (with no real functionality, just menu items for this assignment) to manage the access of theses functions in later assignments. See Figure 4.
- The iCLINIC prototype should be successfully compiled and run correctly.

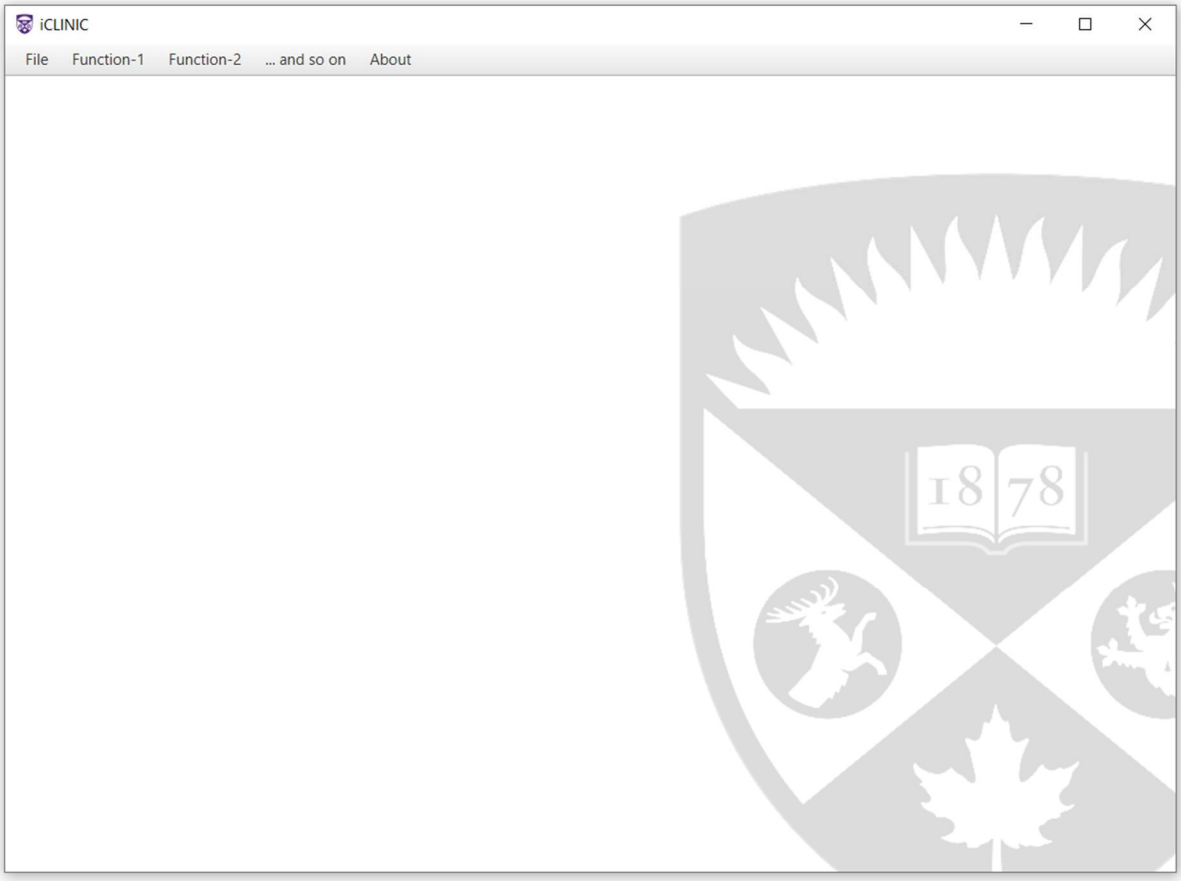


Figure 1

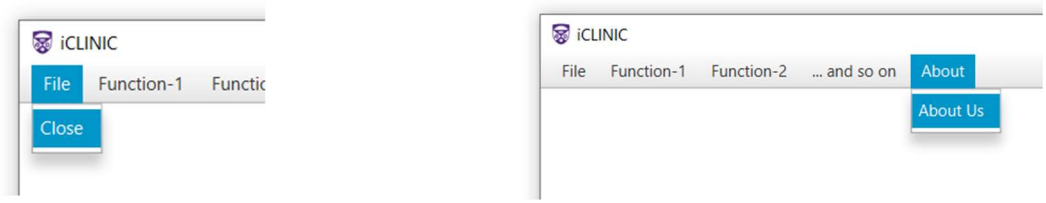


Figure 2

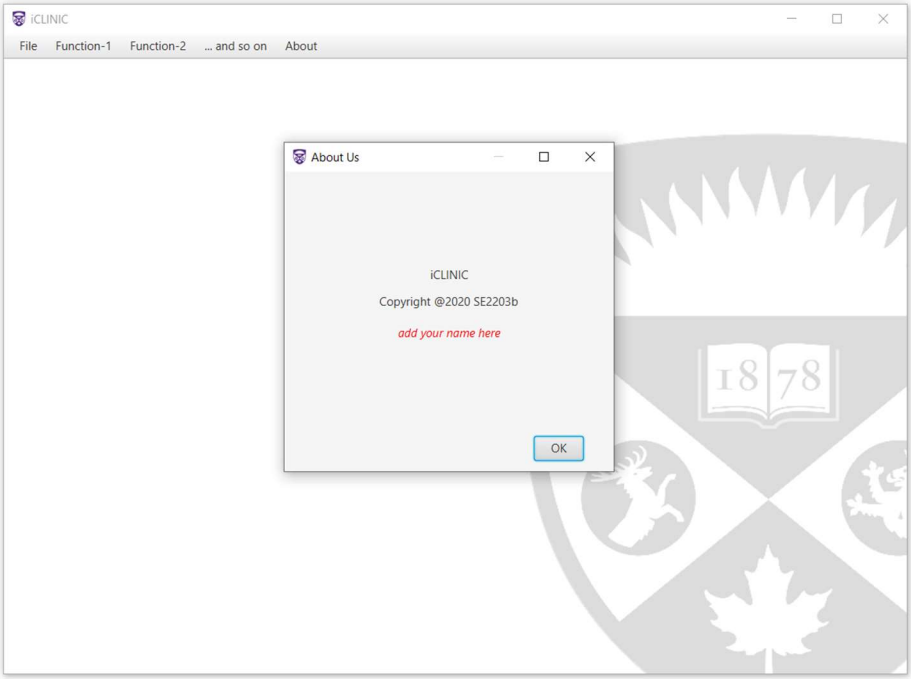
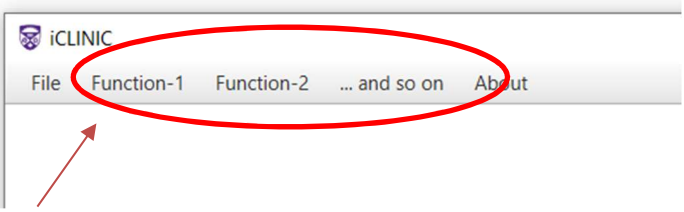


Figure 3



Change these names to the names of your identified system functionalities.

Figure 4

4 Hand in

1. From the IntelliJ main menu, select File → Export to Zip File…, the Save as pop-up window appears, click OK to save your project as yourUwoIdiCLINIC.zip
2. Compress this "yourUwoIdiCLINIC.zip " file along with your solution **workbook** to a zip file and name it "yourUserID_iCLINIC_assignment2.zip".
3. Submit this zip file using OWL assignment link at the due date mentioned above.