

F27SB2 Software Development 2

Laboratory 5

A GUI-based program is required that will enable people to take an on-line test from a bank of multiple choice questions. Each question consists of:

- the question text;
- 4 optional answers;
- the number of the correct answer;

Questions are held sequentially in a text file with each question held on 6 consecutive lines.

For each question, the program should display the question text and optional answers in an appropriate GUI.

The GUI should enable the user to indicate their chosen answer and be able to inform the user whether or not their choice was correct. It should also display the number of correct answers and the number of questions answered so far.

There should be a control to enable the user to move on to the next question.

At the end of the test, the program should display the final score in the command window and exit.

- a) define a class to hold a question;
- b) write a method to read all the questions from a file of given name into an array of question objects;
- c) design and implement a GUI with components to display a question, detect the user's answer choice, display the response and mark, and enable movement to the next question;
- d) write a method to display a question on the GUI;
- e) implement an `ActionPerformed` to respond to user interactions with the GUI;
- f) write a program to conduct a test from a file nominated on the command line.