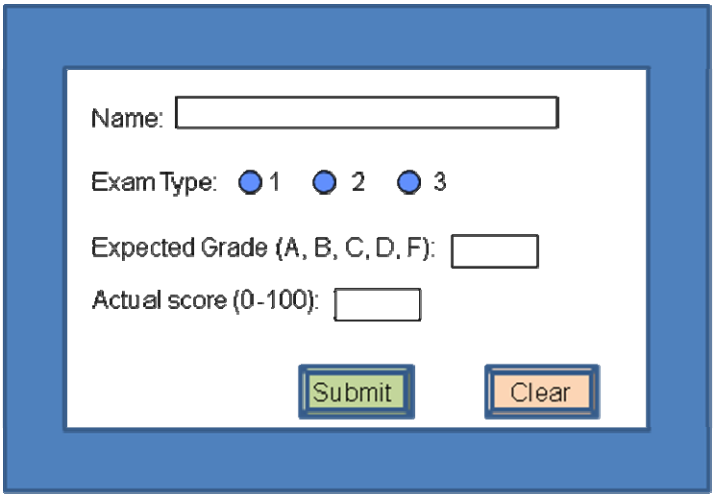
COMP 5222
Software Testing and Quality Assurance
Assignment 2
2012/2013, Term 1

Due date: ***Nov 23, 2012*** Total mark: 50

Question 1

Given the following input screen,



(a) For each input, give the equivalence classes. Note that *actual score* should be an integer. Use the following format: (6 marks)

Input	Type	EC	Description

(b) Give a list of test cases covering your EC. (4 marks)

Question 2

For the following case:

The Boiler is controlled by a monitor system, which will shut down the Boiler if
- Water level is below 20,000 lb
- Water level is above 120,000 lb
- Degraded mode and steam meter fails (Degraded mode when the water pump has failed or the pump monitor has failed)

(a) Identify all causes and effects. (6 marks)

(b) Draw the cause and effect graph. (4 marks)

(c) What test cases you should use? (6 marks)

In fairness to others, late assignment will be deducted 5% per day.

Question 3

Imagine that you were testing how Blackboard's password manager saves login passwords.

(a) Describe two approaches to develop a set of scenario tests that test this feature. (4 marks)

(b) Describe a scenario test that you would use to test this feature. (3 marks)

(c) Explain why this is a particularly good scenario test. (5 marks)

Question 4

(a) A software team follows this process for software development: (6 marks)

- Develop requirements
- Develop system tests
- Design
- Develop integration tests
- Code
- Develop unit tests
- Execute unit tests
- Execute integration tests
- Execute system tests

Where can we add inspection to this process?

(b) Both code inspection and white-box testing focus on finding faults. Identify 3 advantages of doing code inspection over white-box testing. (3 marks)

(c) Identify which of the following tasks should <u>not</u> be performed by the moderator of the inspection team? (Deduct 1 mark for each incorrect selection) (3 marks)

1. Inspection Scheduling	2. Determine need for Overview
3. Determine Inspection team	4. Ensuring availability of materials
5. Give an overview	6. Preparation
7. Inspection Meeting	8. Data Recording
9. Rework	10. Follow-up

NOTE: Like most real-life situations, some problems are not fully defined and may require you making some decisions and listing your assumptions. There can be several possible correct approaches/answers. You are encouraged to ask for clarification if in doubt.

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