
Software Quality Assurance: SOFT3602

Assignment 1 – Due 5 p.m. 1 September 2007

Note that this assignment is different to the SOFT3302 version.

Questions

1. [2 marks] Not a few software industry professionals maintain that the main goal of software testings is ‘to prove that the software is ready.’
 - a. Explain in your own words why this is not a suitable goal for software testing.
 - b. What other goal(s) might replace the goal mentioned above, and what gains in the effectiveness of the testing team can be expected from this change?
2. [3 marks] A software module S12 is coupled with seven lower-level modules and one upper-level module.
 - a. Discuss how the number of couplings affects the efforts required for incremental testing strategies.
 - b. What are the effects of module S12’s coupling situation on the resources required to perform unit tests according to a top-down strategy and a bottom up strategy?
3. [2 marks] Concerning the terms ‘path coverage’ and ‘line coverage’: explain in your own words what the terms mean and list the main difference(s) between these coverage metrics. Explain why the implementation of path coverage is impractical in most test applications.
4. [3 marks] Bengal Tours is a travel centre agency that specialises in tours and vacations. The agency regularly employs 25 permanent employees. During Spring and Summer, the agency employs and additional 20–25 temporary staff, mostly senior-citizens and students. The agency is considering purchasing the right to use the software package ‘TourPlex’ which supports itinerary planning with flight and vacation site vacancies and price information. If purchased, the software will become the main work-tool for the agency staff.

Discuss the importance of the training usability and operational usability tests to be performed by the agency before it purchases ‘TourPlex’.

Marking

Marks are as indicated on each question.

Submission

You should be able to write from one-half to one page for each question/part.

You will need to submit your written assignment **with a signed cover sheet** in the appropriately marked assignment box in the School of IT building by the due date and time. No extensions will be granted. Late work will not be accepted for credit. One minute late is still late so don’t leave things to the last minute. (Be aware that system time may differ from machine to machine)

and may be different to wall-clock time. Please read the section dealing with assessment on the course page.)