
Software Quality Assurance: SOFT3602

Assignment 2 – Due 5 p.m. 2 October 2007

Note that this assignment is different to the SOFT3302 version.

Questions

1. [1 mark] Explain what assumptions lie at the foundation of the model presented in lectures for defect removal and costs.
2. Finding himself under time and budget constraints, a project leader has decided to introduce an ‘economy QA plan’ that limits the quality assurance activities to only a standard design review, as required by the contract with the customer (50% filter) and a comprehensive system test (60% filter). Considering the above model’s contribution to defect removal efficiency and costs:
 - a. [2 marks] What are the expected savings (if any) in resources invested in defect removal during the development process as opposed to the standard quality assurance plan?
 - b. [2 marks] What are the expected effects of the ‘economy plan’ on customer satisfaction? Support your answer with a quantitative comparison to the standard plan.
 - c. [2 marks] Compare the results of the ‘economy plan’ to the results of the standard and comprehensive plans (from lectures) in the form of a table. The table should include, for each plan, the total percentage of removed defects for each QA activity, the cost of removing defects for each activity, the totals for internal QA activities and overall totals. (Your table will have 6 columns and 11 rows.)
 - d. [1 mark] Based on your answer to (c) can you suggest some general rules about choosing the preferred quality assurance plan?
3. [2 marks] Explain, in simple English, what the cyclomatic complexity metric $V(G)$ measures. *Note: an answer such as ‘ $V(G)$ measures the number of edges minus the number of nodes plus 2’ is not an acceptable answer. Think about what the metric is actually ‘measuring’. You need to demonstrate you understand what $V(G)$ is making a statement about in order to receive marks.*

Marking

Marks are as indicated on each question.

Submission

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

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.)