
Software Quality Assurance: SOFT3302

Assignment 3 – Due 5 p.m. 24 October 2007

Introduction

This is a group assignment with the objective of designing and executing tests for a web-based interface. Groups should consist of not more than two SOFT3302 students, preferably from the same tutorial class. Individuals may attempt this assignment but the same standard of work will be expected regardless of the number of team members. The same mark will be awarded to all team members. Each team should submit a single written report in addition to other required materials.

Task

1. Each group will be allocated a trac instance once registered with the tutor. These tracs will be in the usual place. You will need to mail your group members' login names to Daniel Tse dtse6695@mail.usyd.edu.au. Include your team member logins (which should be the same as your trac account logins), your SIDs and give the message a Subject: line of 'SOFT3302 Assignment 3 group'. Your team will be assigned a group identifier and teams will be listed on the course web site. An appropriate trac instance will be created. The instance will only be accessible to the group members and will be used to list reports for the site-under-test. **Failure to lodge details of your group with your tutor will delay group creation and reduce the amount of time available for the assignment.**
2. You will be designing test for the web site www.auspcmarket.com.au. The web site is designed for general user access. Review the site to ensure you understand its functionality. It is an e-commerce site dealing in computer equipment.

AusPCMarket is a 'live' commercial site that has kindly agreed to cooperate with us on this assignment. A login 'student@usyd.edu.au' with the password 'student' has been created for our use. YOU ARE TO USE THIS LOGIN FOR THIS ASSIGNMENT and no other. YOU ARE NOT TO RUN ANY AUTOMATED SCRIPTS OR SPIDERS OVER THE SITE.

Remember thoughtless activity may be taken as a denial-of-service attack on the site. Please use the above login and act courteously and appropriately.

3. Design tests for the web site. These should all be in the wiki and cross-linked.
 - a. Produce a functional hierarchy of the site. The functional hierarchy does not need to be complete. (No more than 50 nodes.)
 - b. Using the functional hierarchy define 3 or more use cases.
 - c. List 10 or more paths for the use cases defined in (b).
 - d. Define 20 or more test cases from the 10 paths in (c) by choosing important variations on the inputs. (Use equivalent partitioning or boundary values to generate test cases.)
4. Run the test cases.

- a. Execute each test case against the site under test.
 - b. For each test, enter the test results into trac for your group product.
 - c. Describe the test case—including path, input and results—in the ‘Comment’ field of the ticket. Here you should include a link back to your test cases in the wiki from step 3.
 - d. Where the test case does not raise a defect, resolve the ticket with a resolution of ‘worksforme’.
 - e. When a defect is discovered, set report fields appropriately and provide a suitably descriptive comment.
5. Report tests results
- a. Write a summary of the test outcomes. (Approximately 250 words.)
 - b. Append a list of long-format defect reports for all test cases run against the site under test.

Marking

The assignment is worth 15 marks and 10% of your overall course mark. Marks will be awarded according to the following marking scheme.

- [2 marks] Functional hierarchy
 - a) Hierarchy complete and set out well
 - b) Hierarchy accurate
- [6 marks] Use cases (including descriptions in trac)
 - a) Flow-of-events diagram provided
 - b) Description, pre- and post-conditions
- [3 marks] Test cases (including descriptions in trac)
 - a) 10 paths provided
 - b) Paths describe realistic user scenarios
 - c) 20 test cases with informative variations
- [3 marks] Test results
 - a) All test results entered into trac
 - b) Comment field completed for each report
 - c) Appropriate values assigned to each report
- [1 mark] Summary

Submission

You will need to submit your written assignment **with a signed *group assignment 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.)