An Extreme Course Project:
Quibble, the Queen’s Basic Event Ticket Service
CISC 327 - Fall 2015

Assignment 5 - Back Office Unit Testing

Due Tuesday, November 24th

In this assignment, you will practice (partial) white box testing of the Back Office you programmed in assignment #4.

You are to create two separate sets of white box unit tests, one for the method or section of code that handles all event creation transactions, and one for the method or section of code that handles all sell transactions.

For each of these two methods or sections of code,

(i) choose any systematic white box test method to use from the list given below - you must choose a different method for each transaction

(ii) analyze the code according to the system of the test method you choose and create a table of cases to be tested

(iii) create a set of tests (transaction inputs) to cover each of the test cases you have identified in the table

(iv) run the test cases on your Back End

(v) make a table of the failures uncovered by your tests (if any)

Systematic white box test methods you may choose from are:

statement coverage testing, basic block testing, decision coverage testing, path testing, input partition testing, output partition testing

What to Hand In

In this assignment, you will hand in a report for each of your two test sets. Each report should include:

(1) A source listing identifying the method or code section(s) you are testing.

(2) Your analysis of the test cases necessary to cover it according to the test method you have chosen. Be sure to specify which test method you are using, and to relate the test cases to the parts of the code that give rise to them. Use a table to report the test cases.

(3) A listing of actual test inputs (transactions) to cover each test case. Be sure to relate your test inputs to the test cases they cover.

(4) A test report reporting the results of the test runs of your Back End for each test, including any failures found.

How to Hand In

As usual, assignments should be handed in as a PDF document on Moodle by midnight on the due date. Be sure to indicate clearly your team name and all member names on your hand in!

How Much To Do

It is not necessary to fully test all aspects of your Back End for this assignment. Fix only problems that you find while running the tests for the create and sell transactions required by the assignment (even if the problems are in other parts of the code). We will be testing for any remaining problems in the final phase of the project, assignment 6.
Assignment #5 Marking Scheme

For EACH of the two sections (event create, sell):

Identification of Code Sections 1 mark

Analysis of Test Cases (different white box method for each) 2 marks
  Analysis/partitioning based on method 1
  Completeness of cases based on criterion 1

Creation of Test Inputs for Test Cases 1 mark

Test Report 1 mark
  Table of results 1/2
  Identification of failures, if any 1/2

  Total each section 5 marks
  Times two sections 10 marks