

Homework Assignment 5 - (CSE 464)
CSE 464, Spring 2018
CIDSE, Arizona State University
Due: Wednesday 25th, by 11:59 pm Online to the Blackboard
Total Points = 50

Introduction: This assignment helps you to reinforce the topics discussed in the class including

- a) Special considerations in web application testing
- b) Software architectural considerations in client-server web applications towards better quality
- c) Using selenium IDE and selenium web driver to test web applications

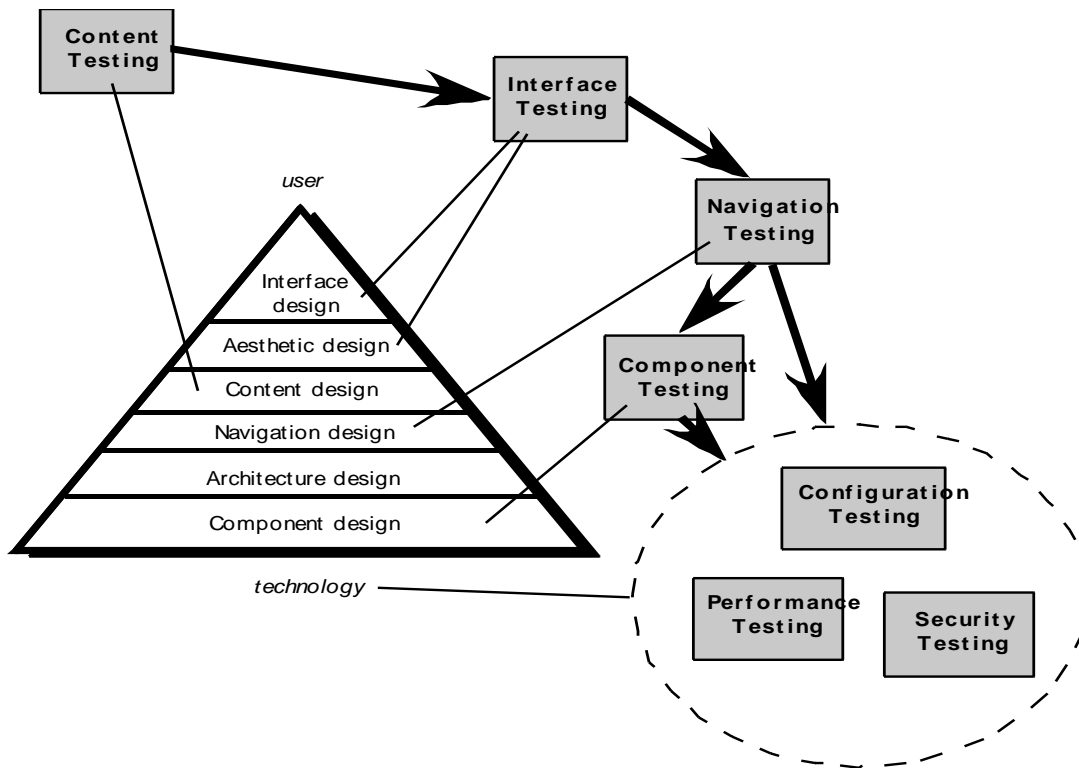
Reading: Lecture notes and example programs/test cases posted under lecture notes related to web application testing.

Pre-requisites: Install selenium IDE in Firefox and configure Eclipse to run selenium web driver (see the tutorial posted under tutorials section of the class website).

1.) [20 Points] **Testing Web Applications : Basic Concepts**

- a) Gray box approach is the most appropriate approach in testing web applications. Briefly explain the difference between gray box approach with respect to black box and white box testing.
- b) Following figure shows the mapping of web application design and testing (conventional 3 tier applications). Briefly explain testing considerations (what do we test and any tools that can be used) in each of the testing areas in the following figure.

Read web application testing lecture 2 posted under week 12 for this question.



2.[30 Points] Using Selenium Toolkit: Selenium is a toolkit that facilitates testing various aspects of web applications. Consider the following application that implements a simple calculator

<http://sod73.asu.edu/~jbalasoo/cse464/hw5/modified/math1.php>

Use eclipse to develop selenium web driver based test-cases to test the four mathematical operations in the simple calculator above. Name your test program as calcTest.java. Please use the Firefox driver or chrome driver

Submission: Submit your calcTest.java.

Note: web driver sample programs and tutorial link is posted under week12. PPT slides are in week 11

Submission Instructions

Prepare a zip file named hw5.zip and submit online the blackboard using HW5 submission link. Your zip file should include solutions to question 1, and 2.

No late submissions will be accepted