CITS 5501

Workshop 2
Automated testing

Deepak Garg
deeplak@csse.uwa.edu.au
Selenium Test Tool

• Introduced by Thoughtworks.
• Selenium is a web browser automation tool.
• Record/playback tool.
Selenium RC

- Selenium RC (Remote Control):
  - It is a playback tool written in Java.
  - Executes the test scripts using different browsers.
  - RC allows to automate tests in any programming language.
Selenium Grid

• Selenium grid:
  – Allows the running of multiple selenium tests concurrently on many local or remote machines (reduces test suite execution time).
    • One server acts as a hub.
    • Tests access the hub to access instances to browsers.
Steps to create selenium with Junit

• Create a new Java Project and lets call it as My_Tests.
• Right Click My_Tests package → New → JUnit Test Case (Select checkboxes SetupBeforeClass, tearDownAfterClass) → Give the name as “first_test”.
• Click “Run” button to execute Junit test case with eclipse.
Sample test case

public void C00_LoginAdmin() throws Exception
{
    browser.click("id=username");
    browser.type("id=username", "admin");
    browser.type("id=password", "Test123");
    browser.click("id=loginbtn");
}
Faults

• Data store faults: Faults that are used to manipulate the data in any kind of data store.
• Logical faults: Faults that manipulate the business logic and control flow e.g., if the user inputs the same string for the password and confirm password fields, still the application displays the error message: Password and Confirm Password fields don't match.
Faults

• Form faults: Faults that control, modifies and displays name value pairs in forms.
• Appearance faults: Faults that control the way in which a web page is displayed.
• Link Faults: Faults that change the page pointed by an URL.