**Web Testing Assignment**

**Due Wednesday April 26 at 11:59 pm**

In this assignment you will use [Selenium WebDriver](http://selenium-rc.openqa.org/) to automate functional testing of a very simple web application. You will use tools and skills gained in this course, such as Eclipse, JUnit techniques and good programming practices in this assignment.

The simple web application, **ToyWebApp**, is provided to you as an Eclipse project. This project requires the Google Plugin to function correctly. **See the “Toy Web Application Tutorial” for setup instructions**.

**Task 1 (5 points):** You will setup an Eclipse project named “Assignment3\_<lastname>” to hold the JUnit tests for **ToyWebApp**. All tests should be in the package **edu.umd.fcmd.enpm614.selenium.test**. Do NOT make changes to or submit the ToyWebApp.

**Task 2 (20 points):** Test the **ToyWebApp** fully according to the **Toy Web Application Specifications**. You must be familiar with an application before you can write good tests for it, therefore, spend some time playing around with this web application before you start writing tests. Note: all behaviors of **ToyWebApp** are considered correct, and your test cases for the original **ToyWebApp** should always pass.

**Task 3 (25 points):** Same as the **JUnit Assignment**, we will run your JUnit tests against versions of the **ToyWebApp** with seeded bugs; you earn points by catching these seeded bugs. The goal here is to encourage you to be thorough and creative with Web Testing.

**Submission Instructions:** Submit a zipped version of your project directory via Canvas. This zip file should be named **Assignment3\_<LastName>.zip** and contains a folder named **“Assignment3\_<YourLastName>”.** See “Project Handling” document for instructions.

**Important:** Start early and ask questions early. For all assignments, your questions will NOT be answered if received after the weekend before they are due.

**Toy Web Application Specifications**

**Two features:**

**Math**

* All user interactions are done through the URL http://localhost:8888/math.jsp?value1=XX&operation=X&value2=XX
* 3 parameters are passed in through the URL
  + value1 must be an integer number
  + value2 must be an integer number
  + operation must be “plus” or “minus”
* Results (math operation results or error messages) will be shown in a text box
* Don’t worry about integer value overflow!

**Form**

* User interactions are done through HTML form
* 3 fields and a submit button in the form
  + Characters any non-null non-empty string
  + Colors any of the 3 selections
  + I agree must be checked
  + Submit submits form data
* Review page reviews (displays) all of the form data submitted or error messages