**Automated Testing Report**

**Time:**

1. Read About Selenium: 10 minutes
2. Install Selenium and run the example Java code: 3 hours
3. Using Selenium to test charts user interface: 2 hours
4. Write a report: 30 minutes

**Experience/Progress:**

After I got a general idea of what selenium could do, I set about installing it. I added the dependency in the maven (pom.xml file). Then I tried to run the example Java code, and a lot of things went wrong. Since I had updated chrome to the highest version, there was no suitable version of selenium that could support it. So, I ended up using Firefox (FirefoxDriver) instead of GhromeDriver. And later a few configurations were made. I failed to “new FirefoxDriver” directly and I was told I must use getProperties before driver.get(“url”). But I still failed, and here again, it took me a long time to solve the connection problem. I searched for a lot of solutions. Finally, I added the Firefox .exe file to the system and gave it permissions, and then it run successfully and connected to google.com.

Following the sample code example, before all I test the connection to the altoro website by testing the title. Then I test the login function of the website. And I research how to set the input value by selenium. First, we need to findElement by id or name, and I choose By.id. Then set the input value by sendKeys. For the “submit” button, it can also be clicked. And finally, I use assertEquals to check if we can log in and get the right web page after submitting. Then I began to test Chart UI. While the input of chart.jsp is different from that of login.jsp. So, I use Select to set the value. To test if the chart is correct, I use the text on the Page. Because when we write the chartdisplay.jsp, the titles of seven different charts are different. So, I wrote seven tests for all chart UI. And I found to achieve the test, each session in the .jsp file must have an id/name, although the website can be seen correctly without an id/name. So, when I wrote the selenium test, I had to go back and correct the JSP again.

**Reflection**:

**What went well**: It successfully tests all the charts. And it can automatically test the login. When we test the chart again, we don't need to do the login operation again.

**What didn’t**: Actually, it took most of the time to install the selenium. And when we write the JSP files, we should be more rigorous and write both id and name in full

**A link to gitlab repo**: https://gitlab.oit.duke.edu/sz248/fintech512-bigbucks