

# Automation Testing Assignment

## What did we just create?

- We just created a **Test Automation Framework**: "scaffolding that is laid to provide an execution environment for the automation test scripts" that we will write
  - □ Page Object Model (POM): This is a design pattern to organize the different pages that Selenium will be interacting with into different classes
  - □ TestNG: a testing framework similar to JUnit 4 or Jupiter (JUnit 5) that gives us the ability to write tests (assertions, annotations such as @BeforeMethod, @AfterMethod, @BeforeClass, @AfterClass, etc). It also helps us to run the tests as well
  - □Selenium: contains an API and functionality to communicate with the WebDriver in order to automate browser actions
  - □Cucumber: BDD framework that provides the ability to easily organize our automation scripts around the user stories (primarily, the acceptance criteria of each user story)

#### User Stories

- As a user, I should be able to log in, so that I can book a tour (user story)
  - □Acceptance Criteria: a set of predefined requirements to mark a user story as complete
  - ■You can treat each acceptance criteria as a cucumber "scenario"
    - ☐ Given that I am on the homepage
    - ☐ When I type into the username input the value of "mercury"
    - ☐ And I type into the password input the value of "mercury"
    - ☐ And I click the submit button
    - ☐ Then I should see the landing page with a header of "Login Successfully"
- As a user, I should be able to log out, so that I can end my current browsing session (user story)
  - ☐ Given that I am on the homepage
  - ☐ When I type into the username input the value of "mercury"
  - ☐ And I type into the password input the value of "mercury"
  - ☐ And I click the submit button
  - Then I should see the landing page with a header of "Login Successfully"
  - ☐ When I click the sign-off button
  - ☐ Then I should be back on the homepage

#### Cucumber

- Behavior Driven Development: we base our tests around user stories (in particular, the acceptance criteria)
- Cucumber is a framework that allows us to connect the user stories written in plain English to the actual Java code (Cucumber also works with other languages as well like JavaScript, etc).
- · The plain English that the acceptance criteria is written in is in the form of feature files written using Gherkin syntax
- Gherkin syntax is easy for everyone to read and understand (Business Analysts, Product managers, Product owners, Developers, Testers, etc.)

### Test Categories

- Regression Testing: re-run previous tests to make sure that nothing broke with new additions to the software. We are testing to make sure that the application did not "regress".
  - •Smoke Testing: preliminary testing to see if it is even worth our time to execute other tests (for example, if login is broken, you probably can't do anything else either)

Build 1

Build 2

Build 3

Build n

Bug Detected Smoke Test Passed

Sanity Testing: usually unscripted, and is a quick narrow test on functionality to see if it is working at a glance

#### One-on-ones for Tomorrow

- 10 that were not selected is top priority
- What questions were asked, what was your own impression after the interview, and given the knowledge now, do you think that you would pass on a second try?
- Technical question
  - □Agile/Scrum/SDLC (week 4 notes)
  - □ Testing Topics (types of tests, defect lifecycle, testing lifecycle, etc) (week 7 notes)
  - □Selenium (syntax, general ideas)
  - □TestNG (what annotations do we have, how are tests structured)
  - □Cucumber (what types of files do we have related, what is the idea of BDD, etc.)
  - □SQL (queries, conceptual knowledge of joins, clauses, SELECT FROM WHERE GROUP BY HAVING ORDER BY, etc.) (sqlzoo.net)
  - □Java (potentially)