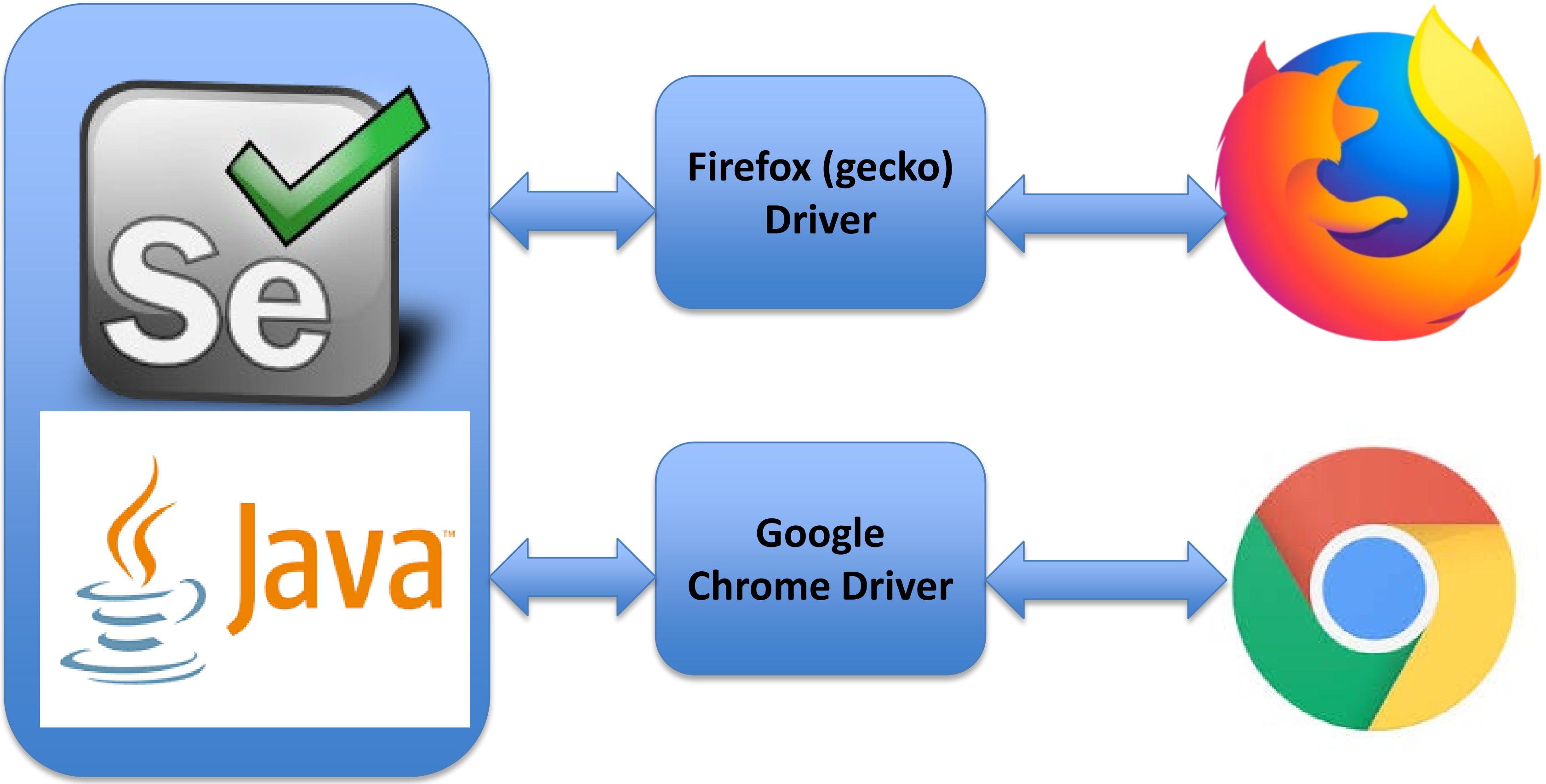
Software Testing (System Level)

Week 10 (Part 1)

Web System Testing

- Automated testing of web application is often required
  - To test UI activities
  - Checking links and connections
  - Submitting web forms
  - More…

Web System Testing



Firefox (gecko) Driver

Google Chrome Driver

Test Code

Converts to browser specific actions

Link Objects

- Find a link in a webpage with a given name and click the link

OpenLinkName.java

Link Objects

- Find all link objects in a webpage. Click on all these links.

FindAllLink.java; FindAndClickAllLinks.java

Filling Button Texts

- Fill up login and password and login to your Google account automatically.

FillMessageText.java

Explicit Wait

- Consider the Google login example. We do not need to wait always 10 seconds. We only need to wait until the “password” field becomes visible in the page. Selenium provides the class ExpectedCondition for this purpose.

ExplicitWaitGoogleLogin.java

Checking Broken Links

- Finding and clicking all links still require a human observer to check what is happening with the software. It will be useful if all links are checked automatically for potential breakage.

BrokenLinkFinder.java

Cohort Exercise 1.1

- Test the new istd.sutd.edu.sg webpage by randomly clicking links. The process may go on forever.

MonkeyTestISTD.java

Cohort Exercise 1.2

- Write a test to do the following: Send N invalid usernames to Google login form (be innovative about the invalid user names) before the captcha appears and then login with your user name and password.

LoginBotWithInvalidValidUser.java

Cohort Exercise 1.3

- Write a test to check whether all web pages *directly* reachable from a given webpage have titles. The test will fail if any such directly reachable webpage has an empty title. Hint: Use getTitle() from the web driver.

HeaderNameFinder.java

More on Web App Testing

- https://www.guru99.com/accessing-forms-in-webdriver.html