Selenium WebDriver

Prerequisites

- Java 8 installed
- IDE installed for Java
- Selenium WebDriver downloaded: http://www.seleniumhq.org/download/
- Selenium JAR files added to IDE as External Library

Firefox

- Latest GeckoDriver downloaded and set up in the Path variable: https://github.com/mozilla/geckodriver/releases
- Without GeckoDriver driver can't be set up for Firefox

Chrome

- Latest ChromeDriver (2.33 as of 2017.10.13) downloaded from: http://chromedriver.storage.googleapis.com/index.html
- System.setProperty invoked to the exe's location in your code

Locating GUI Elements

- Locating single elements in WebDriver is done by using the "findElement(By.locator())" method.

Variation	Description	Sample
By.className	finds elements based on the value of the "class" attribute	findElement(By.className("someClassName"))
By.cssSelector	finds elements based on the driver's underlying CSS Selector engine	findElement(By.cssSelector("input#email"))
By.id	locates elements by the value of their "id" attribute	findElement(By.id("someId"))
By.linkText	finds a link element by the exact text it displays	findElement(By.linkText("REGISTRATION"))
By.name	locates elements by the value of the "name" attribute	findElement(By.name("someName"))
By.partialLinkText	locates elements that contain the given link text	findElement(By.partialLinkText("REG"))
By.tagName	locates elements by their tag name	findElement(By.tagName("div"))
By.xpath	locates elements via XPath	findElement(By.xpath("//html/body/div/table/tbody/tr/td[2]/table/tbody/tr[4]/td/table/tbody/tr/td[2]/table/tbody/tr[2]/td[3]/ form/table/tbody/tr[5]"))

- Locating multiple elements in WebDriver is done by using the "findElements(By.locator())" method.
- findElement is storing the result in a WebElement object.
- findElements is storing the results in a List<WebElement> list.

Important Commands

- User Input with sendKeys method
- Select from dropdown
- Navigation with navigate method
- Cookie handling

Actions

- The user-facing API for emulating complex user gestures.
- Implements the builder pattern: Builds a CompositeAction containing all actions specified by the method calls.
- Notable usages:
  - Double click
  - Drag and drop
  - Examples on DoD

Other WebDriver API commands

- Run Javascript with JavascriptExecutor
- Take a Screenshot
- Waiting for Ajax response
- Examples on DoD