

Selenium with Java

Lecture 6

Basic Methods Available in Selenium

Navigation and Page Control:

- `get(String url)`: Navigates to a specific URL.
- `getCurrentUrl()`: Returns the URL of the current page.
- `getTitle()`: Returns the title of the current page.
- `quit()`: Closes all windows associated with the current driver instance and terminates the browser session.
- `close()`: Closes the current window.
- `back()`: Navigates back to the previous page in the browser history.
- `forward()`: Navigates forward to the next page in the browser history.

Element Interaction:

- `findElement(By locator)`: Locates and returns the first element matching the specified locator strategy (e.g., ID, name, class name, XPath, CSS selector).
- `findElements(By locator)`: Locates and returns all elements matching the specified locator strategy.
- `click()`: Simulates a click on a web element.
- `sendKeys(String text)`: Simulates typing text into a web element.
- `submit()`: Submits a form.
- `doubleClick()`: Simulates a double click on a web element.

Window Management:

- `getWindowHandle()`: Returns the handle (unique identifier) of the current window.
- `getWindowHandles()`: Returns a set of handles for all open windows in the session.
- `switchTo().window(String windowHandle)`: Switches the focus to the window with the specified handle.

Other Useful Methods:

- `manage().timeouts().implicitlyWait(long timeout, TimeUnit unit)`: Sets the implicit wait time (how long to wait for elements to be found).
- `manage().window().maximize()`: Maximizes the current window.

- `getPageSource()`: Returns the HTML source code of the current page.
- `executeScript(String script, Object... arguments)`: Executes JavaScript code within the browser context.

How to handle Dropdown in Selenium :

Single Select Dropdown:

```
package MYPackage;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.Select;
public class Dropdown {
    public static void main(String[] args) throws InterruptedException {
        // TODO Auto-generated method stub
        WebDriver driver = new ChromeDriver();
        driver.get("https://demoqa.com/select-menu");
        driver.manage().window().maximize();
        WebElement dd = driver.findElement(By.id("oldSelectMenu"));
        Select select = new Select(dd);
        select.selectByValue("3");
        Thread.sleep(2000);
        select.selectByVisibleText("Green");
        Thread.sleep(2000);
        select.selectByIndex(5);
    }
}
```

Multi Select dropdown: getAllSelectedOptions(),getFirstSelectedOption(), deselectAll(),
deselectByIndex()

```
package MYPackage;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.Select;
import java.util.*;
public class MulDropDown {
    public static void main(String[] args) throws InterruptedException {
        WebDriver driver = new ChromeDriver();
        driver.get("https://demoqa.com/select-menu");
```

```

driver.manage().window().maximize();
WebElement mdd = driver.findElement(By.id("cars"));
Select select = new Select(mdd);
select.selectByValue("saab");
Thread.sleep(2000);

select.selectByIndex(3);
Thread.sleep(2000);

List<WebElement> allItems = select.getAllSelectedOptions();
System.out.println(allItems.size());

WebElement firstOption = select.getFirstSelectedOption();
System.out.println(firstOption.getText());

select.deselectAll();
Thread.sleep(2000);
select.selectByValue("volvo");
Thread.sleep(2000);

select.selectByIndex(3);
Thread.sleep(2000);

select.deselectByIndex(3);
Thread.sleep(2000);
List<WebElement> allItems1 = select.getAllSelectedOptions();
System.out.println(allItems1.size());

}

}

```

How to Print all the links available in Webpage:

```

package MYPackage;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import java.util.*;
public class PrintAllLinks {
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        WebDriver driver = new ChromeDriver();
        driver.get("https://www.sugarcrm.com/au/request-demo/");
        driver.manage().window().maximize();
    }
}

```

```

List<WebElement>allTags =driver.findElements(By.tagName("a"));
System.out.println("Total tags are:"+allTags.size());
for(int i=0;i<allTags.size();i++) {
    System.out.println("Links present on the page
are:"+allTags.get(i).getDomAttribute("href"));
    System.out.println("Links present on the page are:"+allTags.get(i).getText());
}
}
}

```

How to print all dropdown options available in webpage:

```

package MYPackage;
import java.util.List;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
public class PrintAllOptions {
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        WebDriver driver = new ChromeDriver();
        driver.get("https://www.salesforce.com/form/developer-signup/?d=pb");
        driver.manage().window().maximize();

        List<WebElement>allTags =driver.findElements(By.tagName("option"));
        System.out.println("Total tags are:"+allTags.size());
        for(int i=0;i<allTags.size();i++) {
            System.out.println("DD Options present on the page
are:"+allTags.get(i).getDomAttribute("value"));
        }
    }
}

```

How to Handle Auto Suggestion Dropdown:

```

package MYPackage;
import org.openqa.selenium.By;
import org.openqa.selenium.Keys;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
public class AutoSuggestionDD {
    public static void main(String[] args) throws InterruptedException {
        // TODO Auto-generated method stub

```

```
WebDriver driver = new ChromeDriver();
driver.get("https://www.makemytrip.com/");
driver.manage().window().maximize();
Thread.sleep(2000);
driver.findElement(By.xpath("//span[@class='commonModal__close']")).click();
Thread.sleep(2000);
driver.findElement(By.xpath("//span[text()='From']")).click();
Thread.sleep(2000);

WebElement from = driver.findElement(By.xpath("//input[@placeholder='From']"));
from.sendKeys("Sydney");
Thread.sleep(2000);

from.sendKeys(Keys.ARROW_DOWN);
Thread.sleep(2000);

from.sendKeys(Keys.ENTER);
Thread.sleep(2000);

}

}
```