

# Selenium with Java

## Lecture 7

### How to Handle Checkbox in Selenium:

```
package MYPackage;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
public class CheckboxDemo {
    public static void main(String[] args) throws InterruptedException {
        // TODO Auto-generated method stub
        WebDriver driver = new ChromeDriver();
        driver.get("http://total-qa.com/checkbox-example/");
        driver.manage().window().maximize();
        Thread.sleep(2000);
        //select checkbox
        driver.findElement(By.xpath("//h1[text()='Checkbox Example']/following::input[1]")).click();
        Thread.sleep(2000);
        //deselect checkbox
        driver.findElement(By.xpath("//h1[text()='Checkbox Example']/following::input[1]")).click();
        Thread.sleep(2000);
        //Multi Select Checkbox
        driver.findElement(By.xpath("//h1[text()='Checkbox Example']/following::input[2]")).click();
        Thread.sleep(2000);
        driver.findElement(By.xpath("//h1[text()='Checkbox Example']/following::input[3]")).click();
        Thread.sleep(2000);
        driver.findElement(By.xpath("//h1[text()='Checkbox Example']/following::input[4]")).click();
        //print total number of checkboxes
        System.out.println(driver.findElements(By.xpath("//input[@type='checkbox']")).size());
    }
}
```

- **isEnabled():** A pre-validation for checkbox click event to check whether the checkbox is enabled or disabled on the web page. This method returns true in case element is enabled otherwise it returns false.
- **isDisplayed():** A pre-validation for checkbox click event to check whether the checkbox is displayed on the web page or not. It returns true if the desired element is displayed on DOM otherwise it returns false.
- **isSelected():** A post-validation after the checkbox click event to check whether the checkbox is selected or not. It returns true if the element is selected, else false for deselected.

## How to Handle Radio Buttons in Selenium: isSelected()

```
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.interactions.Actions;

public class RadioButtons {

    public static void main(String[] args) throws InterruptedException {
        // TODO Auto-generated method stub
        WebDriver driver = new ChromeDriver();
        driver.get("https://www.singaporeair.com/en_UK/in/home#/book/bookflight");
        driver.manage().window().maximize();

        WebElement radio1 = driver.findElement(By.xpath("//input[@id='bookFlights']"));

        WebElement radio2 =
driver.findElement(By.xpath("//input[@id='redeemFlights']"));
        Thread.sleep(2000);
        radio2.click();
        System.out.println(radio1.isSelected());
        System.out.println(radio2.isSelected());

        System.out.println(driver.findElements(By.xpath("//*[@name='book-flight-radio']")).size());
    }
}
```

## How to handle frames in selenium: switchTo().defaultContent()

To handle frames (or iframes) in Selenium, you need to switch the driver's focus to the specific frame using the `switchTo().frame()` method, interact with elements within that frame, and then switch back to the main content using `switchTo().defaultContent()`.

1. Identify the Frame:

#### By Index:

If you know the frame's position in the page (0-based index), you can use `driver.switchTo().frame(index)`.

#### By ID or Name:

If the frame has an id or name attribute, you can use `driver.switchTo().frame("id_or_name")`.

#### By WebElement:

Locate the frame element using a locator strategy (e.g., XPath, CSS selector) and then pass the WebElement to `driver.switchTo().frame(WebElement)`.

### 2. Switch to the Frame:

- Use the `driver.switchTo().frame()` method with the appropriate identifier (index, ID, name, or WebElement).

### 3. Interact with Elements Inside the Frame:

- Once the driver is focused on the frame, you can locate and interact with elements within that frame using the usual Selenium commands (e.g., `findElement()`, `click()`, `sendKeys()`).

### 4. Switch Back to the Main Content:

- After interacting with elements in the frame, switch back to the main content using `driver.switchTo().defaultContent()`.

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

        WebDriver driver = new ChromeDriver();
        driver.get("https://www.w3schools.com/jsref/tryit.asp?filename=tryjsref_alert");
        driver.manage().window().maximize();
        //by index
        driver.switchTo().frame(0);
        driver.findElement(By.xpath("//html/body/button")).click();
        //by id
        driver.switchTo().frame("iframeResult");
```

```

// driver.findElement(By.xpath("//html/body/button")).click();
//by webelement
// WebElement frame1= driver.findElement(By.id("iframeResult"));
// driver.switchTo().frame(frame1);
// driver.findElement(By.xpath("//html/body/button")).click();
//switch to parent frame
// driver.switchTo().parentFrame();
System.out.println(driver.getTitle());
}
}

```

## How to Handle Alert Popup in Selenium: accept(),dismiss(),getText()

To handle alerts in Selenium, use the Alert interface, switching to the alert using `driver.switchTo().alert()`, and then using methods like `accept()`, `dismiss()`, `getText()`, and `sendKeys()` to interact with it.

### 1. Switching to the Alert:

- First, you need to switch the WebDriver's focus to the alert using `driver.switchTo().alert()`.

### 2. Alert Interface Methods:

`accept():`

This method clicks the "OK" button or accepts the alert.

- Example: `alert.accept()`

`dismiss():`

This method clicks the "Cancel" button or dismisses the alert.

- Example: `alert.dismiss()`

`getText():`

This method retrieves the text displayed in the alert box.

- Example: `String alertText = alert.getText();`

`sendKeys(String text):`

This method sends text to the alert box (used for prompt alerts).

- Example: `alert.sendKeys("Some text");`

```
package MYPackage;
```

```

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
public class DemoAlert {
    public static void main(String[] args) throws InterruptedException {
        // TODO Auto-generated method stub
        WebDriver driver = new ChromeDriver();
        driver.get("https://www.w3schools.com/jsref/tryit.asp?filename=tryjsref_alert");
        driver.manage().window().maximize();
        WebElement frame1= driver.findElement(By.id("iframeResult"));
        driver.switchTo().frame(frame1);
        driver.findElement(By.xpath("/html/body/button")).click();
        //for getting text of alert
        String alertText = driver.switchTo().alert().getText();
        System.out.println(alertText);
        Thread.sleep(2000);
        //for accepting alert
        driver.switchTo().alert().accept();
        //for dismiss alert
        driver.switchTo().alert().dismiss();
        //switch to parent frame
        driver.switchTo().parentFrame();
        System.out.println(driver.getTitle());
    }
}

```

## How to Handle Alert Popup in Selenium: sendKeys()

```

package MYPackage;
import org.openqa.selenium.Alert;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
public class Alert2 {
    public static void main(String[] args) throws InterruptedException {
        // TODO Auto-generated method stub
        WebDriver driver = new ChromeDriver();
        driver.get("https://www.w3schools.com/jsref/tryit.asp?filename=tryjsref_prompt");
        driver.manage().window().maximize();
        WebElement frame1= driver.findElement(By.id("iframeResult"));
        driver.switchTo().frame(frame1);
        driver.findElement(By.xpath("/html/body/button")).click();
        Alert alert = driver.switchTo().alert();
        Thread.sleep(2000);
        //sendKeys
    }
}

```

```
        alert.sendKeys("Piyush Keshari");
        alert.accept();

        driver.switchTo().defaultContent();
        System.out.println(driver.getTitle());
    }

}
```