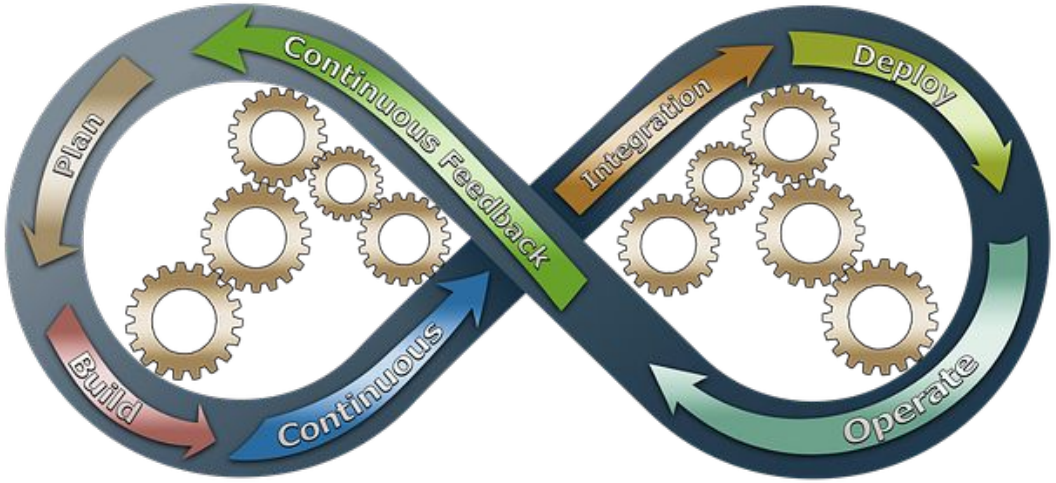

Session 4.6

Alerts,Frames, Windows

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Introduction

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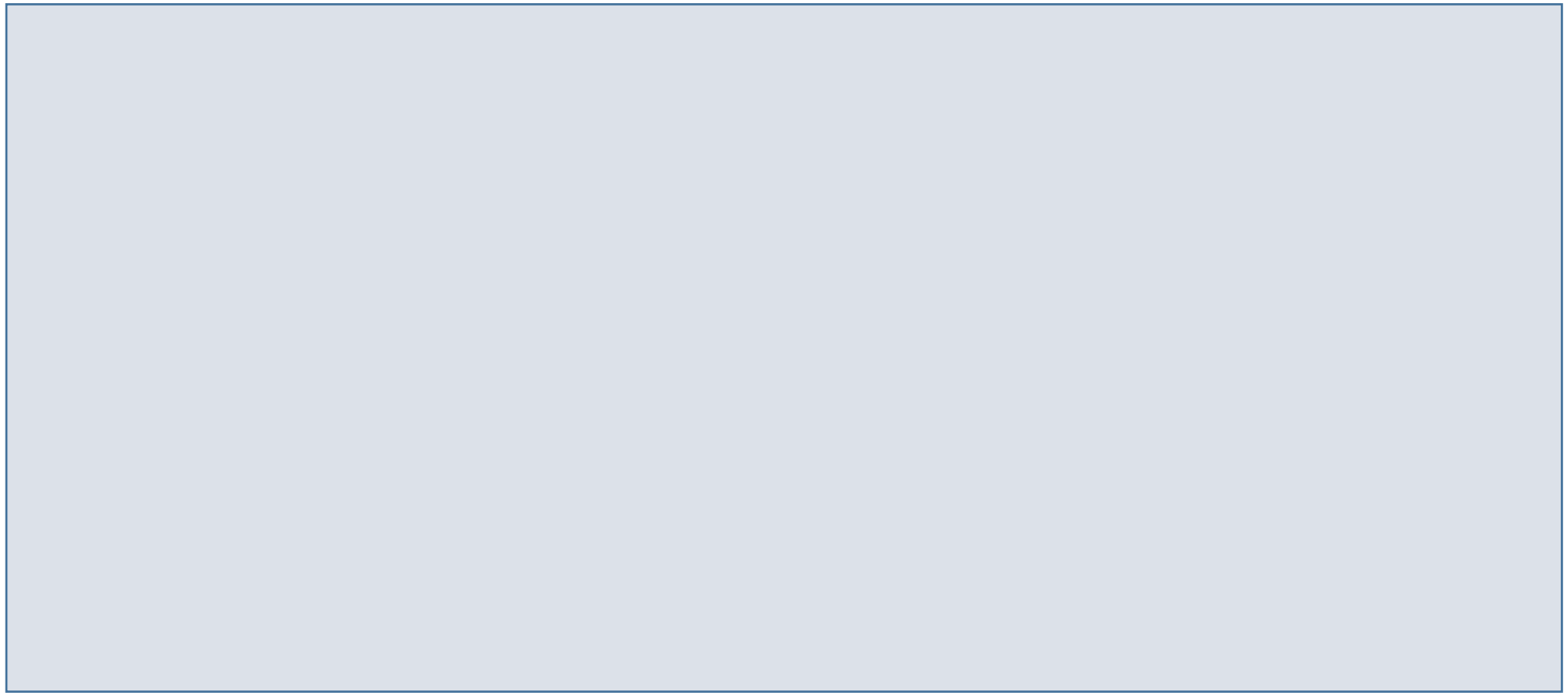

Let’s go!!!

Alerts, Frames, Windows

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Alerts:

- The alerts are pop-ups that appear on clicking a link or a button. Immediately after it appears on the page, the focus is shifted from the current page to the alert.
- To work with an alert pop up we need to switch the driver focus from the parent page to the pop up generated. his is achieved with the help of the **switch_to.alert ()** method.
  -

Syntax:

```
a = driver.switcht_to.alert ();
```

- After switching the focus on the alert, we can accept, dismiss, or get the text displayed in the alert.
- For accepting the alert or clicking on the OK button, we have to use the method as a.accept ().
- Next to dismiss or to click on the X symbol, the alert method to be used is a.dismiss ().
- If we want to extract text on the pop-up, the method to be used is a.getText().
- Also, we can input text on the alert with the a.send_keys () method.

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Code Implementation with Alert:

```
#   import the webdriver
from selenium import webdriver
# import the Keys class
from selenium.webdriver.common import keys
driver = webdriver.Chrome (executable_path="C:\\chromedriver.exe")
# get method to launch the URL
driver.get("http://183.82.4.93:5887/moss/javascript-alert-test-page.html")
# to identify the element
I = driver.find_element_by_xpath ("//*[@id = 'content']/button")
# to click the button
I.click()
# to switch to the alert
a = driver.switch_to.alert ();
# to get the alert text
print ( a.text)
# to accept the alert
a.accept ()
# again producing the alert
I = driver.find_element_by_xpath ("//*[@id = 'content']/button")
# to click the button
I.click ()
# to dismiss the alert
a.dismiss ()
# to close the browser
driver.close ()
```

Handling Windows

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Handling Windows

A window in any browser is the main webpage on which the user is landed after hitting a link/URL. Such a window in Selenium is referred to as the parent window also known as the main window

Syntax:

- **get.windowhandle():** This method helps to get the window handle of the current window
- **get.windowhandles():** This method helps to get the handles of all the windows opened
- **set:** This method helps to set the window handles in the form of a string.

  set<string> set= driver.get.windowhandles()
- **switch to:** This method helps to switch between the windows
- **action:** This method helps to perform certain actions on the windows

Alert interface methods

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Handling Windows

Selenium WebDriver provides three methods to accept and reject the Alert depending on the Alert types.

- **void dismiss()**
- This method is used to click on the 'Cancel' button of the alert.
  - **Syntax:**
  - driver.switchTo().alert().dismiss();
- **void accept()**
- This method is used to click on the 'Ok' button of the alert.
  - **Syntax:**
  - driver.switchTo().alert().accept();
- **String getText()**
- This method is used to capture the alert message.
  - **Syntax:**
  - driver.switchTo().alert().getText();
- **void sendKeys(String stringToSend)**
- This method is used to send some data to the alert box.
  - **Syntax:**
  - driver.switchTo().alert().sendKeys("Text");

Handling Frames /IFrames

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iFrame in Selenium Webdriver is a web page or an inline frame which is embedded in another web page or an HTML document embedded inside another HTML document.

1. Switch to the frame by index:

- Index is one of the attributes for frame handling in Selenium through which we can switch to it.
- Index of the iframe starts with '0'.
- Suppose if there are 100 frames in page, we can switch to frame in Selenium by using index.

Syntax:

```
driver.switchTo().frame(0);
driver.switchTo().frame(1);
```

2. Switch to the frame by Name or ID:

- Name and ID are attributes for handling frames in Selenium through which we can switch to the iframe.

Syntax:

```
driver.switchTo().frame("iframe1");
driver.switchTo().frame("id of the element");
```

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3. Switch to the frame by Name or ID:

Syntax:

```
driver.switchTo().frame(WebElement frameElement);
```

Code Implementation with frames:

```
#   import the webdriver
from selenium import webdriver
# import the Keys class
from selenium.webdriver.common import keys
driver = webdriver.Chrome (executable_path="C:\\chromedriver.exe")
# get method to launch the URL
driver.get ("http://183.82.4.93:5887/moss/nested_frames ")
# to switch to a frame with name attribute
driver.switch_to.frame ("frame-bottom")
# to identify an element inside that frame and get text
print ( driver.find_element_by_css_selector ("body").text)
# to switch to the main page content
driver.switch_to.default_content ()
# to close the browser
driver.close ()
```

Handling Nested Frames

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Nested frames:

- At first we must switch to the outer frame by either Index or ID of the iframe.
- Once we switch to the outer frame we can find the total number of iframes inside the outer frame, and.
- We can switch to the inner frame by any of the known methods.

Syntax to find frame count:

```
driver.findElement(By.tagName("iframe")).getSize();
```

Syntax to print frame count in develop console:

```
System.out.println(driver.findElement(By.tagName("iframe")).getSize());
```

Handling multiple Browsers or Tabs

Now let's take an example scenario to understand how it works. The scenario here is as follows:

- Open the Loan Management System URL.
- Search for "Branch" location.
- Save the URL of Branch.
- Open a new tab.
- Switch to the new tab and launch the stored URL.

To open the URL, use the sendKeys command as shown below:

```
driver.findElement(By.cssSelector("body")).sendKeys(Keys.CONTROL+ "t");
```

To switch back to the original tab:

```
driver.navigate().to("URL of the tab");
```

To close the Tab:

```
driver.close()
```

TargetLocator interface methods

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Interface WebDriver.TargetLocator:

Modifier and Type	Method	Description
WebElement	**activeElement()**	Switches to the element that currently has focus within the document currently "switched to", or the body element if this cannot be detected.
Alert	**alert()**	Switches to the currently active modal dialog for this particular driver instance.
WebDriver	**defaultContent()**	Selects either the first frame on the page, or the main document when a page contains iframes.
WebDriver	**frame(int index)**	Select a frame by its (zero-based) index.
WebDriver	**frame(java.lang.String nameOrId)**	Select a frame by its name or ID.
WebDriver	**frame(WebElement frameElement)**	Select a frame using its previously located WebElement.
WebDriver	**newWindow(WindowType typeHint)**	Creates a new browser window and switches the focus for future commands of this driver to the new window.
WebDriver	**parentFrame()**	Change focus to the parent context.
WebDriver	**window(java.lang.String nameOrHandle)**	Switch the focus of future commands for this driver to the window with the given name/handle.

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Session Recap