Non-HTML POP UP

- Pop ups which are developed without using the HTML are called as non-html pop ups.

Characteristics of Non-HTML pop ups
- We cannot inspect the elements which are present on non-html pop ups.
- Based on the characteristics of non-html pop ups, non-html popups are classified into following types.
  1. Alert/Java Script pop up
  2. File upload pop up
  3. File download pop up
  4. Window pop up
  5. Notification pop up

Alert/Java Script pop up

What is Alert?
- Alert is a small message box which displays on-screen notification to give the user some kind of information or ask for permission to perform certain kind of operation. It may be also used for warning purpose.
- Working with JavaScript popup boxes is different from working with normal HTML controls in web pages in Selenium WebDriver test scripting. You need to learn how to work with different JavaScript popup boxes.
- We will discuss about working with alert popup.
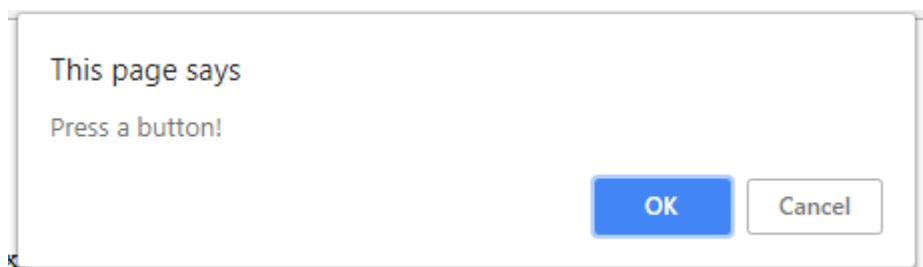- JavaScript has three kinds of popup boxes.

They are,

1. Simple Alert box.

2. Confirmation Alert box.

3. Prompt Alert box.

- You will have to explicitly close the popup boxes before proceeding to normal Selenium commands in your test scripts.

1. Simple Alert Box
- Simple alert boxes displays some information and it will be having only one button.
- When an alert box is pops up you have to click the OK button to proceed to the next command.
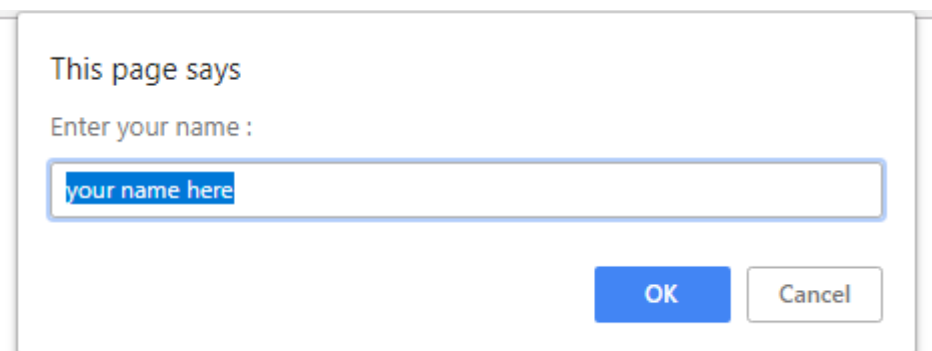
2. Confirmation Alert Box

- Confirmation alert pop ups ask the user to give permission to perform the operation. These kind of pop ups displays the information as well it will be having the ok and cancel button.
- When a confirm box popup you will have to click either Cancel or OK button before proceeding to next Selenium command.

3. Prompt Alert Box

- Prompt alert pop ups ask some input from the users. These kind of pop ups will be having the input box and ok and cancel button.
- When a prompt box popup you can enter (type) an input value into the input box [Optional] and click the OK button or Cancel button to proceed.

- Before handling the any kind of pop ups first we need to understand the characteristics of pop ups.

Characteristics of Alert Pop Up:

1. We cannot inspect the pop-up
2. We can move or some time we cannot move the pop-up
3. It contains only one button ('ok' or 'yes') or two buttons ('ok' and 'yes') and input box.

Note: This kind of pop-up is also called as web based pop-up and java script pop-up.

- When a popup box is present in a web page you will have to explicitly consume (by clicking OK or Cancel) it before proceeding to the next command in your test script.

- Selenium provides an interface to work with all kinds of JavaScript popups.

- You will have to switch to the popup box to working with them.

- You can switch to the alert and have control over it.

- In order to switch the control to alert pop up. We use the below method. Which returns the object of type Alert.

```
Alert alert = webDriver.switchTo.alert();
```

Alert interface provides following methods to perform the operations on alert pop ups

1. Accept
2. Dismiss
3. GetText
4. SendKeys

Clicking the OK button

You can call the accept method in the Alert interface to click the OK button.

```
Alert alert = driver.switchTo().alert();
alert.accept();
```

Clicking the Cancel button

You can call the dismiss method to click the Cancel button.

```
Alert alert = driver.switchTo().alert();
alert.dismiss();
```

Typing text into an input box

You can call the sendKeys method to type text into the input box in a prompt.

```
Alert alert = driver.switchTo().alert();
alert.sendKeys("Enter the value to alert input box");
```

Getting the message in a popup

You can get the message in any of the JavaScript popup boxes.

```java
Alert alert = driver.switchTo().alert();
String msgOfPopUp = alert.getText();
System.out.println("Message present on alert pop up: " + msgOfPopUp);
```

Write a program to Click on Ok button on alert pop up?

```java
import java.util.concurrent.TimeUnit;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.Alert;

public class Accept {
    public static void main(String[] args) throws InterruptedException {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("file:///C:/Users/PriyaPramod/Desktop/HTML%20Pages/Practice/AlertPopUp/alertPopUp.html");
        driver.manage().timeouts().implicitlyWait(100, TimeUnit.SECONDS);

        driver.findElement(By.xpath("//button[contains(text(),'Try it')]")).click();

        Alert alert = driver.switchTo().alert();
        alert.accept();

        driver.close();
    }
}
```

Write a program to click on cancel button?

```java
import java.util.concurrent.TimeUnit;
import org.openqa.selenium.Alert;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;

public class Dismiss {
    public static void main(String[] args) throws InterruptedException {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("file:///C:/Users/PriyaPramod/Desktop/HTML%20Pages/Practice/AlertPopUp/alertPopUp.html");
        driver.manage().timeouts().implicitlyWait(100, TimeUnit.SECONDS);

        driver.findElement(By.xpath("//button[contains(text(),'Try it')]")).click();

        Alert alert = driver.switchTo().alert();
        alert.dismiss();

        driver.close();
    }
}
```

Write a program to enter the text to alert input box?

```
import java.util.concurrent.TimeUnit;
import org.openqa.selenium.Alert;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;

public class SendKeys {
    public static void main(String[] args) throws InterruptedException {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("file:///C:/Users/PriyaPramod/Desktop/HTML%20Pages/Practice/AlertPopUp/AlertValue.html");
        driver.manage().timeouts().implicitlyWait(100, TimeUnit.SECONDS);

        driver.findElement(By.xpath("//input[@value='Click Me']")).click();

        Alert alert = driver.switchTo().alert();
        alert.sendKeys("Qspiders");
        alert.dismiss();

        driver.close();
    }
}
```

Write a program get the message displaying on the alert box?

```
import java.util.concurrent.TimeUnit;
import org.openqa.selenium.Alert;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;

public class GetText {
    public static void main(String[] args) throws InterruptedException {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("file:///C:/Users/PriyaPramod/Desktop/HTML%20Pages/Practice/AlertPopUp/alertPopUp.html");
        driver.manage().timeouts().implicitlyWait(100, TimeUnit.SECONDS);

        driver.findElement(By.xpath("//button[contains(text(),'Try it')]")).click();

        Alert alert = driver.switchTo().alert();
        String alertText = alert.getText();
        System.out.println("The message displaying on the pop-up: " + alertText);
        alert.dismiss();

        driver.close();
    }
}
```

Wait for a Popup box

- A popup box may not be available immediately when you try to work with them. You may have to wait till the popup box is present in the webpage.

- In order to make the script to wait for Alert Pop Up. We use explicit waits to wait for the alert pop up.

- Below is the program which uses the condition called "AlertIsPresent ()" condition, which waits for the pop up till the specified time, if it is present. It will switch the control to alert pop up and returns object of Alert or else through "**TimeOutException**".

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```java
import java.util.concurrent.TimeUnit;
import org.openqa.selenium.Alert;
import org.openqa.selenium.By;
import org.openqa.selenium.NoAlertPresentException;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.WebDriverWait;

public class HandlingAlertUsingExpliciteWait {
    public static void main(String[] args) throws InterruptedException {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("file:///C:/Users/PriyaPramod/Desktop/HTML%20Pages/Practice/AlertPopUp/AlertValue.html");
        driver.manage().timeouts().implicitlyWait(100, TimeUnit.SECONDS);

        driver.findElement(By.xpath("//input[@value='Click Me']")).click();
        try {
            WebDriverWait wait = new WebDriverWait(driver, 30);
            Alert alert = wait.until(ExpectedConditions.alertIsPresent());
            alert.accept();
        } catch (NoAlertPresentException ex) {
            System.out.println("Alert is not present");
        }
        driver.close();
    }
}
```

Activate Windows

Write a script to handle the Un-expected Alert Pop up.

```java
package popup_alert;

import java.util.concurrent.TimeUnit;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.UnexpectedAlertBehaviour;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.chrome.ChromeOptions;
import org.openqa.selenium.remote.CapabilityType;

public class UnExpectedAlertPopUp {
    public static void main(String[] args) throws InterruptedException {

        ChromeOptions option = new ChromeOptions();
        option.setCapability(CapabilityType.UNEXPECTED_ALERT_BEHAVIOUR, UnexpectedAlertBehaviour.ACCEPT);

        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver(option);
        driver.manage().window().maximize();
        driver.get("file:///C:/Users/PriyaPramod/Desktop/HTML/AlertPopUp/alertPopUp.html");
        driver.manage().timeouts().implicitlyWait(100, TimeUnit.SECONDS);
        Thread.sleep(5000);

        JavascriptExecutor JS = (JavascriptExecutor)driver;
        JS.executeScript("alert('Welcome To Qspiders')");

        Thread.sleep(5000);

        driver.close();
    }
}
```