3. Child window popup

- A window in any browser is the main web page 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
- which opens when the Selenium WebDriver session is created and has all the focus of the WebDriver.
- But when we click on the buttons or a link which navigates to a new window, it will open other windows, within the parent window. This window is called Child Windows.
- But still the focus of the selenium webdriver is on the parent window, hence to use child window we need to move the focus of selenium webdriver from parent to child window.
- Each window here will have a unique ID that we can use to switch between windows.
- Firstly we need to get this unique ID by using the methods provided by Selenium Webdriver and then use the same to switch the focus of selenium webdriver to that specified window.
- Below are the two methods that we use for handling window:

    - **getWindowHandle( ):**
        - When a website opens, we need to handle the main window i.e the parent window using driver.getWindowHandle( ); method.
        - With this method, we get a unique ID of the current window which will identify it within this driver instance.
        - This method will return the value of the String type.

Syntax :

String parentAddress = *driver*.getWindowHandle();

System.*out*.println(parentAddress);

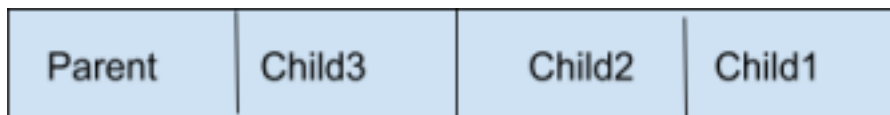   - **getWindowHandles( ):**
        - To handle all opened windows which are the child windows by web driver, we use driver.getWindowHandles( ); method.
        - The windows store in a Set of String type data type and here we can see the transition from one window to another window in a web application.
        - Its return type is Set <String>.

Syntax :

Set<String> parentAddress = *driver*.getWindowHandles();

System.***out***.println(parentAddress);

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○ **switchto():** Using this method we perform switch operation within windows.

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This is how multiple windows are opened on browser

Parent	Child3	Child2	Child1

E.x Multiple window handling program

```java
package Java_package;

import java.awt.AWTException;
import java.io.IOException;
import java.util.ArrayList;
import java.util.List;
import java.util.Set;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class Testing1 {

        public static void main(String[] args) throws InterruptedException, IOException,
AWTException {
                System.setProperty("webdriver.chrome.driver",
"/Users/amitparate/Downloads/chromedriver");

                WebDriver driver = new ChromeDriver();

                driver.manage().deleteAllCookies();

                driver.manage().window().maximize();

                driver.get("https://opensource-demo.orangehrmlive.com/");
```

```java
                String parentID = driver.getWindowHandle(); // to get the address of parent window
                System.out.println(parentID);


WebElement linkedIn = driver.findElement(By.xpath("//img[@alt='LinkedIn OrangeHRM group']")); //
1st child window
                linkedIn.click();
                Thread.sleep(2000);


WebElement facebook = driver.findElement(By.xpath("//img[@alt='OrangeHRM on Facebook']")); //
2st child window
                facebook.click();
                Thread.sleep(2000);


WebElement twitter = driver.findElement(By.xpath("//img[@alt='OrangeHRM on twitter']")); // 3st child
window
                twitter.click();
                Thread.sleep(2000);


WebElement youtube = driver.findElement(By.xpath("//img[@alt='OrangeHRM on youtube']")); // 4st
child window
                youtube.click();
                Thread.sleep(2000);

                Set<String> allwindows = driver.getWindowHandles(); // stored all windows address

                List<String> list = new ArrayList<String>(allwindows); // converted into list

String twittersitetitle = "OrangeHRM - World's Most Popular Opensource HRIS - Home | Facebook"; //
reference title

                for (String s : list) // for each loop to compare title
                {
                        String windowtitle = driver.switchTo().window(s).getTitle();
                        System.out.println(windowtitle);

                        if (windowtitle.equals(twittersitetitle)) {
                                System.out.println("Title is correct");
                                driver.switchTo().window(twittersitetitle);
                        }
                        System.out.println("title is incorrect");
                }
        }
}
```