### Child-browser pop up

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- Child browser pop-ups are small windows that 'pop up' over the top of web pages in your internet browser.

Example: New tabs, new windows.

#### **Characteristics:**

- 1. We can inspect.
- 2. We can move it.
- 3. It contains minimize, maximize and close buttons and also logo of the browser.
- 4. It may contain the address bar.
- In order to handle or work with the child browser. First we should transfer the control from main browser window into the child browser window using the following code.

```
driver.switch_to.window("window_name")
```

- In the command, window method takes an argument of type string which is window handle of the child browser.
- 'Window handle' is a unique alpha numeric string generated by "OS" for every new window and tab.
- In order to get window handle we can use the following method.

```
driver.current_window_handle
```

- The return type of the "current\_window\_hanlde" is string. Which returns the window handle of the focused browser, which will be parent window.
- In wed driver there is no method which gets the window handle of child browser directly, we can use another method provided by selenium called "window\_hanldes", which returns **List [String].** In order to get the child window handle we need to Travers in the list to retrieve the unique id one at a time.

```
all_window_handle = driver.<mark>window_handles</mark>
```

**Note:** In order to perform any operation on child browser, we write a code for switching to the child browser first, then perform the required operation, after switching to the child browser. If we call close method than it will close the current browser (child browser). But in order to perform any operation on the parent browser we must write a code to switch back to parent browser or else it will through **"NoSuchWindowException".** 

## Program to get the current window handle

```
from selenium import webdriver

driver = webdriver.Chrome()
driver.maximize_window()
driver.implicitly_wait(30)
driver.get("http://demo.actitime.com/")

print('Current window handle: ', driver.current_window_handle)
driver.close()
```

## Program to print all window handles

```
from time import sleep
from selenium import webdriver
from selenium.webdriver.common.keys import Keys

driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://docs.seleniumhq.org/")
driver.implicitly_wait(30)

download_link = driver.find_element_by_xpath("//a[@title='Get Selenium']")

for i in range(0,5):
    download_link.send_keys(Keys.CONTROL, Keys.ENTER)
    sleep(1)

all_window_handles = driver.window_handles

for handle in all_window_handles:
    print('Window handle: ', handle)

driver.quit(())
```

## Program to get all the window handles and close all the windows one by one.

```
from selenium import webdriver
from time import sleep

driver = webdriver.Chrome()
driver.maximize_window()
driver.implicitly_wait(30)
driver.get("https://www.naukri.com/")

all_window_hanldes = driver.window_handles

for window_hanlde in all_window_hanldes:
    driver.switch_to.window(window_hanlde)
    driver.close()
    sleep(2)
```

# Program to switch the control to child window

```
from selenium import webdriver
from selenium.webdriver.common.keys import Keys
driver = webdriver.Chrome()
driver.maximize window()
driver.get("https://docs.seleniumhq.org/")
driver.implicitly_wait(30)
selenium_link = driver.find_element_by_xpath("//a[@title='Get Selenium']")
selenium_link.send_keys(Keys.CONTROL + Keys.ENTER)
current window handle = driver.current window handle
child window handle = None
All_browser_windowHandle = driver.window_handles
for handle in All_browser_windowHandle:
    if handle != current_window_handle:
        child window handle = handle
        break
driver.switch_to.window(child_window_handle)
driver.find_element_by_xpath("//a[text()='Javadoc']").click()
driver.quit()
```

```
from time import sleep
from selenium import webdriver
from selenium.webdriver.common.keys import Keys
driver = webdriver.Chrome()
driver.maximize window()
driver.get("https://docs.seleniumhq.org/")
driver.implicitly_wait(30)
selenium_link = driver.find_element_by_xpath("//a[@title='Get Selenium']")
selenium_link.send_keys(Keys.CONTROL, Keys.ENTER)
parent_window_handle = driver.current_window_handle
all_window_handles = driver.window_handles
all_window_handles.remove(parent_window_handle)
driver.switch_to.window(all_window_handles[0])
driver.get('https://www.gmail.com')
sleep(5)
driver.quit()
```

#### **Get the browser coordinates**

```
from selenium import webdriver

driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://docs.seleniumhq.org/")
driver.implicitly_wait(30)

window_handle = driver.current_window_handle
window_position = driver.get_window_position(window_handle)

print("Window positions: ", window_position)
print("X-Coordinates of browser: ", window_position.get("x"))
print("Y-Coordinates of browser: ", window_position.get("y"))
driver.quit()
```

### Get the browser size

```
from selenium import webdriver

driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://docs.seleniumhq.org/")
driver.implicitly_wait(30)

window_handle = driver.current_window_handle
window_size = driver.get_window_size(window_handle)

print("Window size: ", window_size)
print("Height of browser: ", window_size.get("height"))
print("Width of browser: ", window_size.get("width"))
```

### Get the browser coordinates and size of the browser.

```
from selenium import webdriver

driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://docs.seleniumhq.org/")
driver.implicitly_wait(30)

window_rect = driver.get_window_rect()

print("Window details: ", window_rect)
print("Height of browser: ", window_rect.get("height"))
print("Width of browser: ", window_rect.get("width"))
print("X-Coordinates of browser: ", window_rect.get("x"))
print("Y-Coordinates of browser: ", window_rect.get("y"))
driver.quit()
```