

Selenium 4 Intro

New Window & Tab Concept

New Window/New Tab

Selenium 4 allows us to open a new window and open a new tab in the same session at the same time. After opening the window or tab, we have the ability to work in it without creating a new driver.

Concept of Opening A New Window/Tab

In this video, we are going to look at the concept of opening a new window and a new tab. With previous versions of Selenium, we could use the Robot Class to simulate the keyboard and open a new tab by pressing CTRL + T then switching focus to the tab after getting the window handle. Now, we can perform those same steps with Selenium 4 using 1 line of code: We can use it for a window or tab. `driver.switchTo().newWindow(WindowType.WINDOW or TAB).get(url);`

New Window / New Tab Syntax

```
driver.switchTo().newWindow(WindowType.WINDOW).get(url);  
driver.switchTo().newWindow(WindowType.TAB).get(url);
```

Notice, WINDOW and TAB are written in green.

- driver is used to control the browser
- switchTo() is a method that sends commands to a window. It switches focus between the windows
- newWindow() is a method that creates a new window or tab then automatically switches focus to that new window or tab
- WindowType is an enum. Enum is short for enumeration which is a list of constants that define a new data type. In this case, the constants are WINDOW and TAB that instructs our program to open a new window or new tab.
- WINDOW is the parameter for creating a new window
- TAB is also a parameter but it's used for creating a new tab
- Last is the get(url) method which loads a new page in our browser

New Window / New Tab Syntax

```
driver.switchTo().newWindow(WindowType.WINDOW).get(url);
```

```
driver.switchTo().newWindow(WindowType.TAB).get(url);
```

Argument	Description
driver	Controls the browser
switchTo()	Sends commands to a window
newWindow()	Create a new browser window or tab then automatically switch focus
WindowType	An enum containing a list of constants (WINDOW and TAB)
WINDOW	A type hint parameter that creates a new window
TAB	A type hint parameter that creates a new tab
get(url)	Loads a new page in the browser

Demo

For our Test Script, we have a set up method to load an Automation Practice website then get the title. I commented out the tear down method because I want the page to stay open after executing our Test Script.


```
@BeforeMethod
public void setUp () {
    WebDriverManager.chromedriver().setup();
    driver = new ChromeDriver();
    driver.manage().window().maximize();
    driver.get("http://automationpractice.com/index.php");
    System.out.println("Title: " + driver.getTitle());
}
```

```
@AfterMethod
public void tearDown () {
    //driver.quit();
}
```

Let's start the test by writing @Test / public void testNewWindowConcept () {}
driver.switchTo().newWindow(WindowType.TAB);

```
@Test
public void testNewWindowConcept () {
    driver.switchTo().newWindow(WindowType.TAB);
}
```

If I hover the newWindow() method, and the description states "Creates a new browser window and switches the focus for future commands of this driver to the new window". In shorter words, it will open a new window then switch focus to that window. We also see the parameters are type hint which is a type of new browser window to be created. The type hint will be *WINDOW* or *TAB*. Returns this driver focused on the given window. When it says window, it's referring to a window or a tab. That's why I was able to write WindowType.TAB. One more point, do you see how the Return Type is WebDriver?

 **WebDriver** org.openqa.selenium.WebDriver.TargetLocator.newWindow(WindowType typeHint)

Creates a new browser window and switches the focus for future commands of this driver to the new window.

See [W3C WebDriver specification](#) for more details.

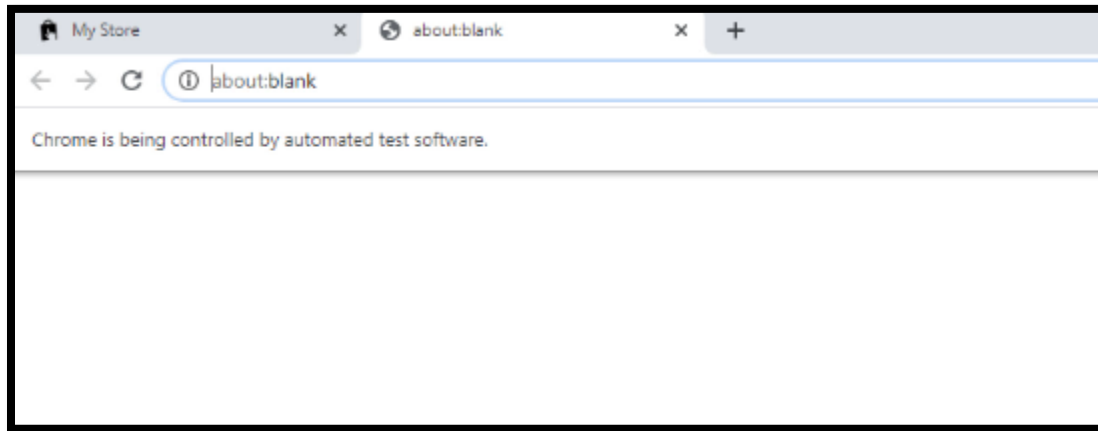
Parameters:

typeHint The type of new browser window to be created. The created window is not guaranteed to be of the requested type; if the driver does not support the requested type, a new browser window will be created of whatever type the driver does support.

Returns:

This driver focused on the given window

If we choose to, we can assign this statement to WebDriver with any name like newPage =. Let's Run.
We have 2 tabs and a blank page is opened with automatic focus in the new tab.



The same outcome happens with a new window. Change TAB to WINDOW then run. A blank page is opened in a new window. For our Test Script, after the blank page, we are going to open the Contact Us page. Let me grab this URL and load a new page by writing `newPage.get("Paste the URL")` and print the page title `sysout ("Title: " + driver.getTitle())`.

```
@Test
Run | Debug
public void testNewWindowConcept () {
    WebDriver newPage = driver.switchTo().newWindow(WindowType.WINDOW);
    newPage.get("http://automationpractice.com/index.php?controller=contact");
    System.out.println("Title: " + driver.getTitle());
}
```

Let's Run. Both titles are displayed in the Console: My Store and Contact Us – My Store.

```
INFO: Detected dialect: W3C
Title: My Store
Title: Contact us - My Store
PASSED: testNewWindowConcept
```

Next, I will show you how to open, switch, work in the new tab then switch back to the parent tab.

Contact

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