

Iframe Handling

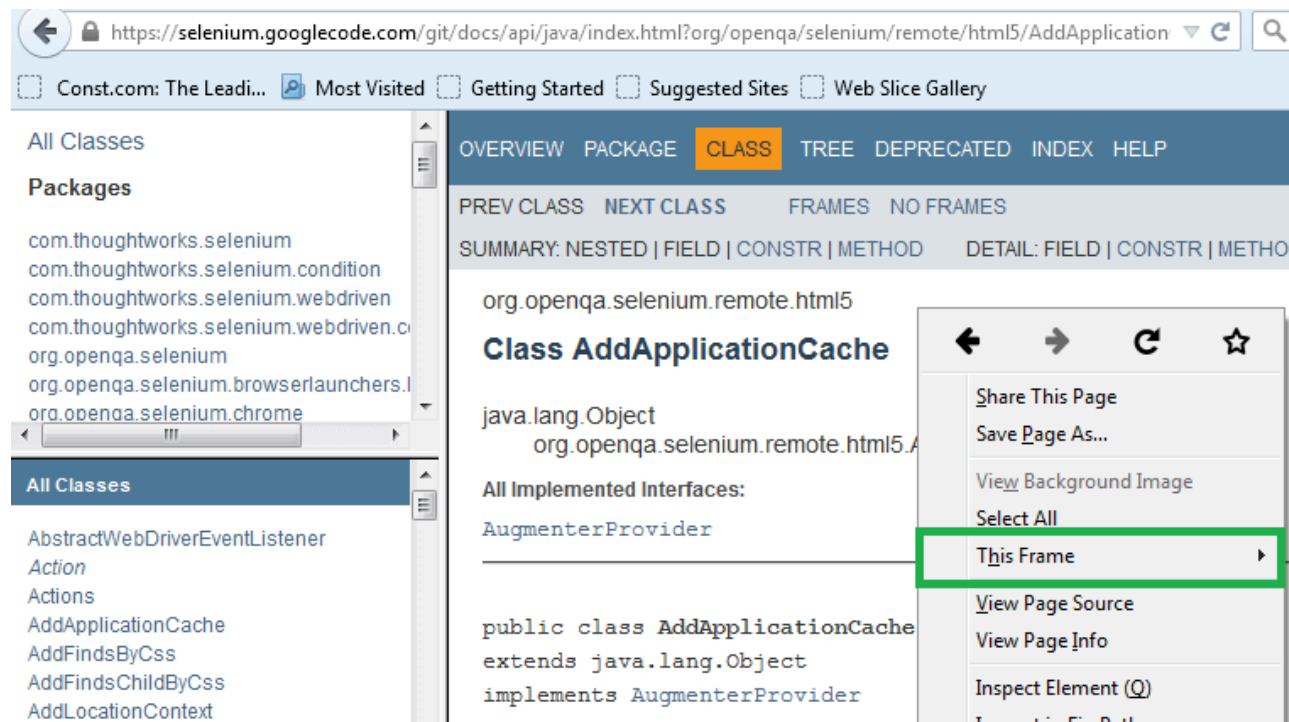
What is Frame?

- Frame/iFrame is nothing but another webelement in the HTML page, which displays another part of the webpage.
- iFrame is a web page which is embedded in another web page
- or an HTML document embedded inside another HTML document.
- So we won't be able to interact directly with it via the DOM.
- We need to switch into the frame to see the elements present in the frame.
- We can handle frames/iframes present in the webpage using `browser.switchToFrame()` command in `WebdriverIO`.

Presence of Frame in WebDriverIO

- It is important for the tester to check whether an element is inside an iframe/frame or just on the webpage.
- If the element is inside a frame then we have to switch into the frame to access the element.

1. Right-click on the page (not on the element) which part you want to check.
2. On the right-click options you can find This Frame Option, if this option is present then there is an iframe else there is no iframe frame-selenium-webdriver



Handle frames in WebDriverIO

- If we want to access any element inside an iframe in WebDriverIO, we must find and switch to that iframe and access the element. WebDriverIO provides two functions to handle the iframes/frames in automation.

- switch to Frame
- exit current frame
- exit all the frames

switchToFrame with WebDriverIO

switchToFrame function in webdriverIO changes the focus to another frame on the page. We can find the iframe/frame using right-click in manual testing, finding the iframe/frame in WebDriverIO is a little tricky.

Below are the ways to find the iframe/frame:

1. Using ID
2. Using Name (Not given in Official docs but works)
3. Using Element (widely used)
4. Using Index

1. Using ID :

- We can find the frame using Id attribute present in the iframe/frame

JavaScript

```
<iframe id="ifr" name="demo" src="demo.html" height="200" width="300">
</iframe>

// switching to a rame which has id as 'ifr'
browser.switchToFrame("ifr")
```

2. Using Name :

- We can find the frame using the name attribute present in the iframe/frame

JavaScript

```
<iframe id="ifr" name="demo" src="demo.html" height="200"
width="300"></iframe>

// switching to a frame which has name='demo'
browser.switchToFrame("demo")
```

3. Using Element:

- Here we will find element ref with the help of locators (except id, name, as we used already) like classname, xpath, CSS.

JavaScript

```
<iframe id="ifr" name="demo" src="demo.html"></iframe>
<iframe id="ifr" name="demo" class='second' src="width.html"></iframe>
// switch to 1st frame
browser.switchToFrame($(".//iframe[@src='demo.html']"))
```

4. Using Index :

- WebDriverIO assigns an index to every frame present on the page, using an index is the least preferred way of finding the frame as in future frame position may change when development introduce another frame in between

JavaScript

```
// switch to 1st frame, index starts with 0
browser.switchToFrame(1)
```

Navigate to Parent Frame/Main Page with WebDriverIO

Switch to Parent Frame : `switchToParentFrame()` method in `webdriverio` switches the control to outer position(one place) in web page, the outer position could be a frame or page level.

Default Content : `switchToFrame(null)` method exits all the iframes and places the `webdriverio` control at the page level whereas `switchToParentFrame()` method exits the current iframe.

JavaScript

```
describe('WebdriverIO', () => {
  it('Handle iframes with WebdriverIO', () => {
    // open webpage
    browser.url('https://chercher.tech/practice/frames')
    // store the text value
    var textValue = $('//label/span').getText();
    // switch to frame1
    browser.switchToFrame("frame1")
    // find the frame 3
    var frame3 = $('//iframe[@id='frame3']");
    // switch to frame 3
    browser.switchToFrame(frame3);
    // find the checkbox
    var checkbox = $('//input[@type='checkbox']");
    // if check box is not selected then click the checkbox
    if(! checkbox.isSelected()){
      checkbox.click();
    }
  });
});
```

```
it('Handle iframes with WebDriverIO', () => {
    browser.url("https://chercher.tech/practice/frames")
    browser.switchToFrame("frame1")
    browser.switchToFrame("frame3")
    var checkbox = $("//input[@type='checkbox']")
    if(! checkbox.isSelected()){
        checkbox.click();
    }
    // navigate to parent frame, which is frame 1
    browser.switchToParentFrame()
    // set the value of the textbox to the value stored
    $("//input[@type='text']").setValue("selenium");
    // navigate to parent, which is page
    browser.switchToParentFrame();
    // store the text value
    var textValue = $("label>span").getText()
    browser.pause(5000)
    //verify the value matches or not
    expect(textValue).toBe("selenium webdriver")
});
```



```
it('Handle iframes with WebdriverIO', () => {  
    browser.url("https://chercher.tech/practice/frames")  
    browser.switchToFrame("frame1")  
    browser.switchToFrame("frame3")  
    var checkbox = $("//input[@type='checkbox']")  
    if(! checkbox.isSelected()){  
        checkbox.click();  
    }  
    // navigate to page level  
    browser.switchToFrame(null)  
    //switch to frame2  
    browser.switchToFrame("frame2");  
    //find the dropdown and set value  
    $("select").selectByVisibleText("Avatar")  
});
```