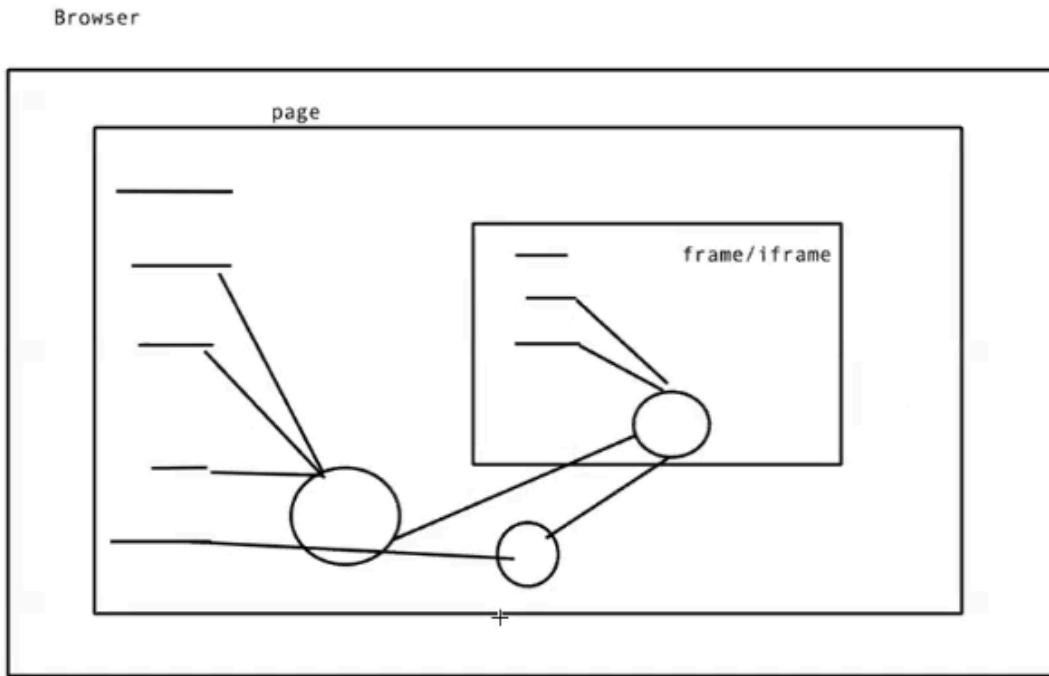


## Frames -

For security at web element level or page level frames are added. Secure items locked inside frame.



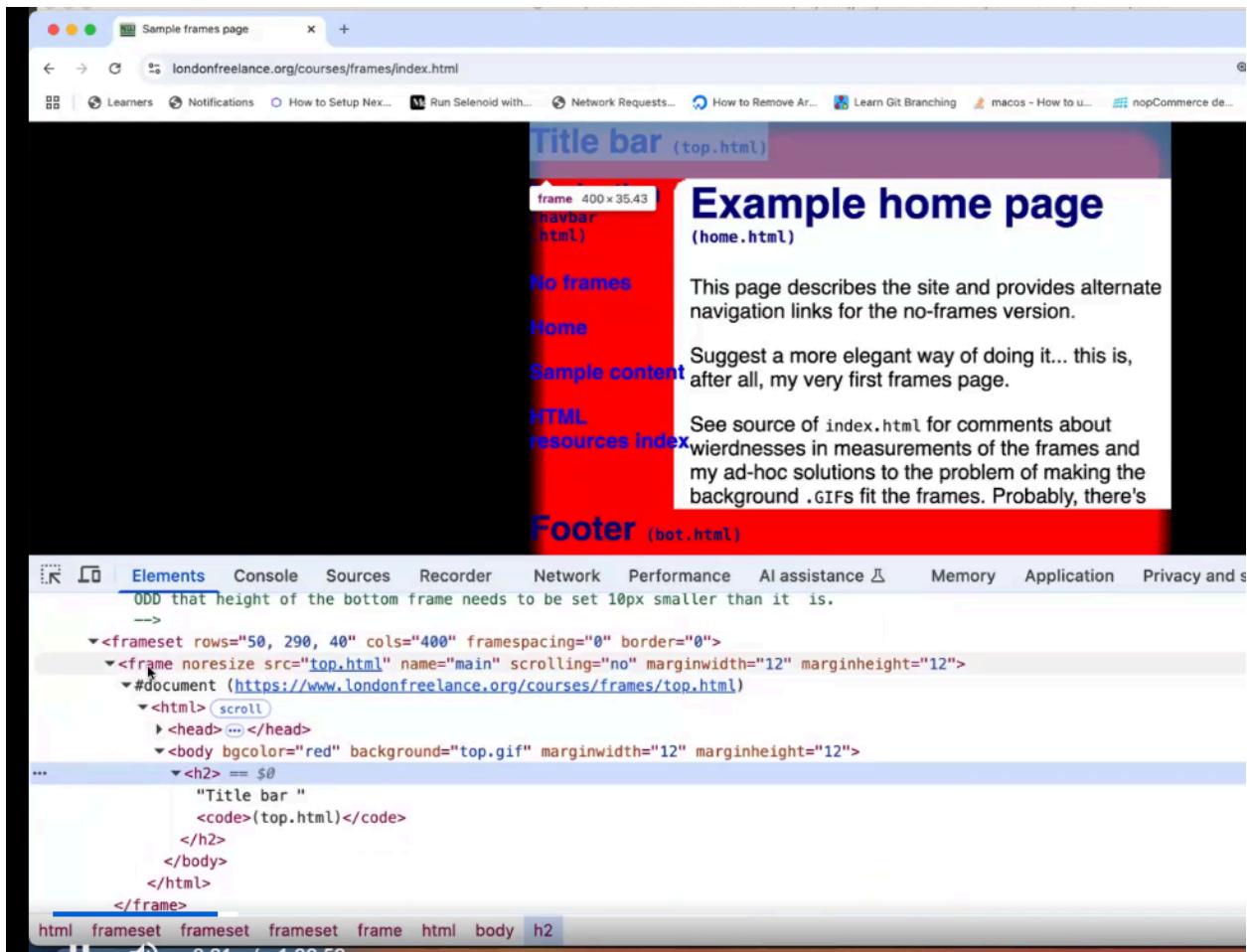
```
*FrameHandle.java ✘
1 package seleniumsessions;
2
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.chrome.ChromeDriver;
6
7 public class FrameHandle {
8
9     public static void main(String[] args) throws InterruptedException {
10         WebDriver driver = new ChromeDriver(); //browser
11
12         driver.get("http://www.londonfreelance.org/courses/frames/index.html");
13         Thread.sleep(3000);
14
15         String header = driver.findElement(By.tagName("h2")).getText();
16         System.out.println(header);
17     }
18 }
```

Capture the header tag from the page and print it-

```
Mar 26, 2025 8:38:00 AM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 134, returning the closest version; found: 133; Please update your chrome driver
Exception in thread "main" org.openqa.selenium.NoSuchElementException: no such element: Unable to locate element:
i (Session info: chrome=134.0.6998.118)
```

Element is inside the frame. So we get no such element exception.

Frame itself will have its own html inside.



Frame method is overloaded. Returns webdriver.

```
//switch driver to frame;
driver.switchTo().frame|
```

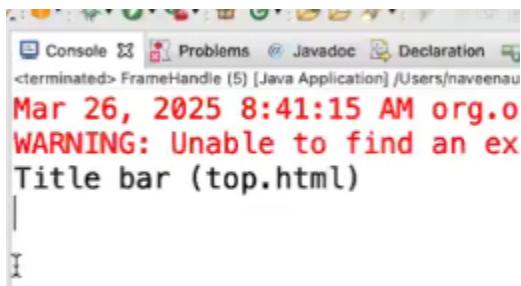
frame(int index) : WebDriver - TargetLocator  
frame(String nameOrId) : WebDriver - TargetLocator  
frame(WebElement frameElement) : WebDriver - TargetLocator  
parentFrame() : WebDriver - TargetLocator

Index starts from zero.

Go to third frame.

Get the header now and print it.

```
14
15     //switch driver to frame;
16     driver.switchTo().frame(2);
17
18
19
20     String header = driver.findElement(By.tagName("h2")).getText();
21     System.out.println(header);
22 }
```



The screenshot shows the Eclipse IDE's Java Application perspective. The 'Console' tab is selected, displaying the following log output:

```
<terminated> FrameHandle (5) [Java Application] /Users/naveenau
Mar 26, 2025 8:41:15 AM org.o
WARNING: Unable to find an ex
Title bar (top.html)
```

Switch to frame using name-

Get the header and print it.

```
14
15     //switch driver to frame;
16     //driver.switchTo().frame(2);
17     driver.switchTo().frame("main");
18
19
20     String header = driver.findElement(By.tagName("h2")).getText();
21     System.out.println(header);
22 }
```



The screenshot shows the Eclipse IDE's Java Application perspective. The 'Console' tab is selected, displaying the following log output:

```
<terminated> FrameHandle (5) [Java Application] /Users/naveenau
Mar 26, 2025 8:42:47 AM org.o
WARNING: Unable to find an ex
Title bar (top.html)
```

Use webelement-

Get the header and print it.

```

14
15     //switch driver to frame;
16     //driver.switchTo().frame(2);
17     //driver.switchTo().frame("main");
18     driver.switchTo().frame(driver.findElement(By.xpath("//frame[@src='top.html']")));
19
20
21     String header = driver.findElement(By.tagName("h2")).getText();
22     System.out.println(header);
23 }

```

The screenshot shows the Eclipse IDE interface with the Java code for switching frames. Below the code, the Eclipse Console tab is active, displaying the following output:

```

terminated> FrameHandle (5) [Java Application] /Users/naveen
Mar 26, 2025 8:45:07 AM org.
WARNING: Unable to find an e
Title bar (top.html)

```

## Count number of frames on page-

```

15
16     //total number of frames:
17     int frameCount = driver.findElements(By.tagName("frame")).size();
18     System.out.println(frameCount);

```

The screenshot shows the Eclipse IDE interface with the Java code for counting frames. Below the code, the Eclipse Console tab is active, displaying the following output:

```

terminated> FrameHandle (5) [Java Application] /Use
Mar 26, 2025 8:46:44 AM
WARNING: Unable to find
8
Title bar (top.html)

```

Frames deprecated in modern w3c. Use iframes.

Another example where iframe is used-

The screenshot shows the Eclipse IDE interface with the Java code for interacting with an iframe. The code is part of a class named IFrameHandle. The Eclipse Editor tab is active, showing the following code:

```

1 package seleniumsessions;
2
3 import org.openqa.selenium.WebDriver;
4 import org.openqa.selenium.chrome.ChromeDriver;
5
6 public class IFrameHandle {
7
8     public static void main(String[] args) throws InterruptedException {
9         WebDriver driver = new ChromeDriver(); //browser - chrome
10
11         //page
12         driver.get("https://www.formsite.com/templates/registration-form-templates/vehicle-registration-form/"); //page
13         Thread.sleep(3000);
14

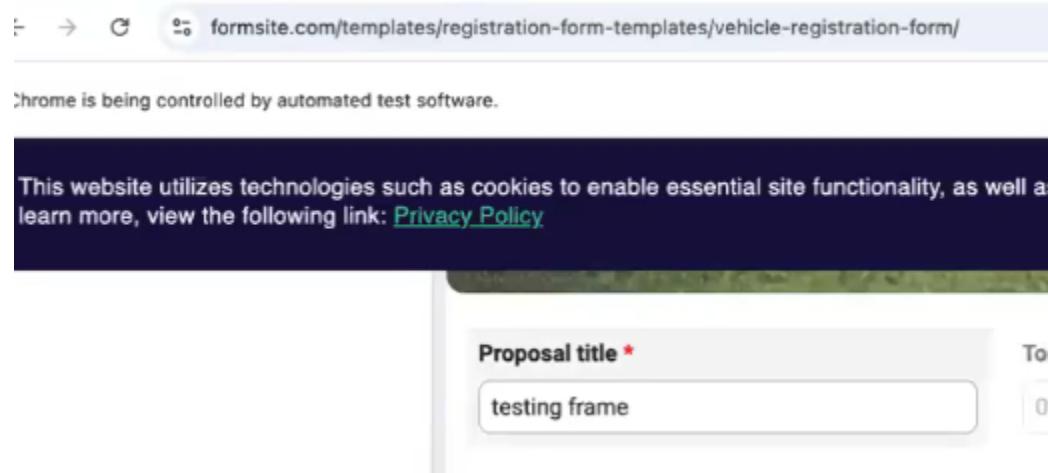
```

Click on the image to open for editing.

```
15     driver.findElement(By.xpath("//img[@title='Vehicle-Registration-Forms-and-Examples']")).click();
16
17
18     Thread.sleep(3000);
```

## Switch to frame. Enter in proposal title.

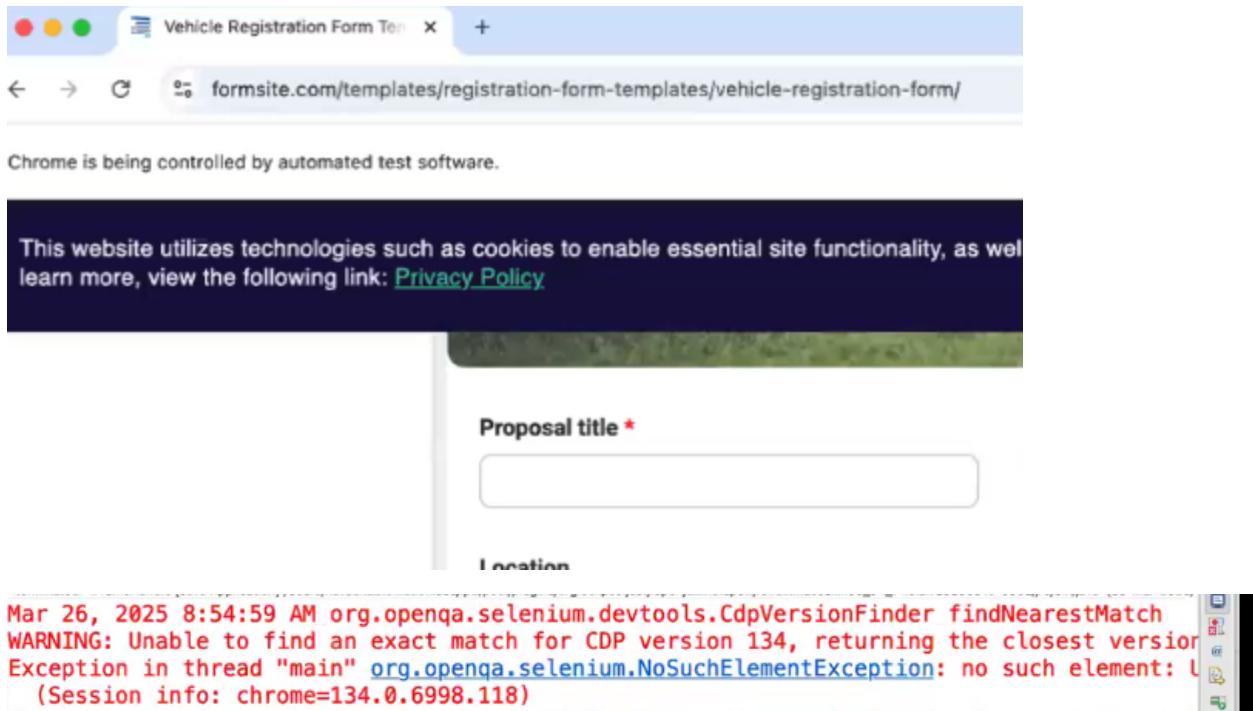
```
19     driver.switchTo().frame(driver.findElement(By.xpath("//iframe[contains(@id,'frame-one')]")));
20
21     driver.findElement(By.id("RESULT_TextField-1")).sendKeys("testing frame");
22
```



We dont have idea if frame is there on page-  
So what we do is, normal send keys and check if  
working.

```
19     //driver.switchTo().frame(driver.findElement(By.xpath("//iframe[contains(@id,'frame-one')]")));
20
21     driver.findElement(By.id("RESULT_TextField-1")).sendKeys("testing frame");
22
23
```

Lets see if it enters. We get no such element  
exception. Not entering in the text field.



Tip-

When you have written right locator, and you get no such element exception, check if its inside iframe.

Switch back to main page-

Default content method - returns web driver.

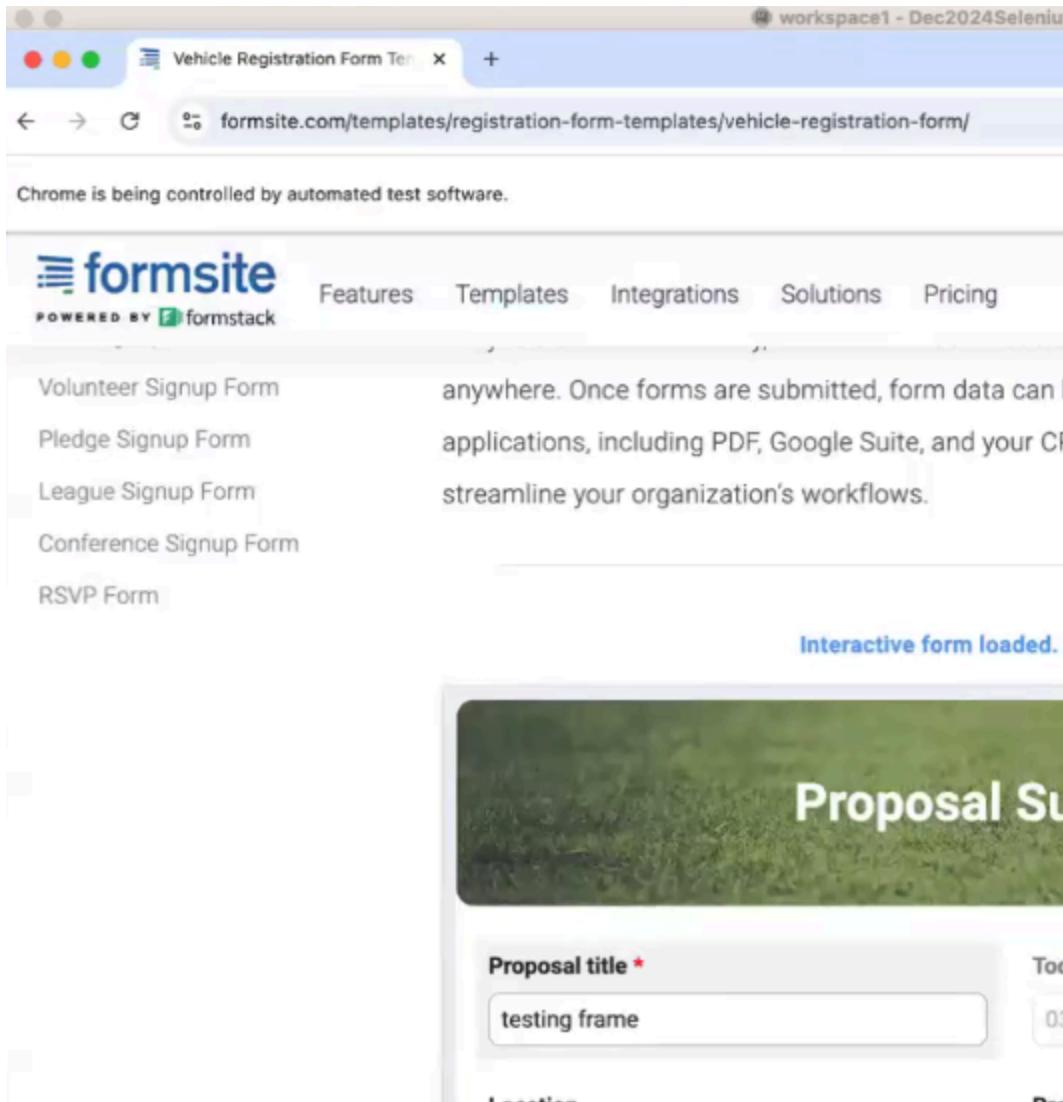
Switches back to main page.

Capture vehicle registration text from the main page.

Suppose we dont come back using default content-

We are inside iframe only.

```
23      //switch back to the main page:  
24      //driver.switchTo().defaultContent();  
25  
26      String header = driver.findElement(By.cssSelector("h3.details__form-preview-title")).getText();  
27      System.out.println(header);  
28  }  
29  
30  
```



No such element exception as we didnt go back.

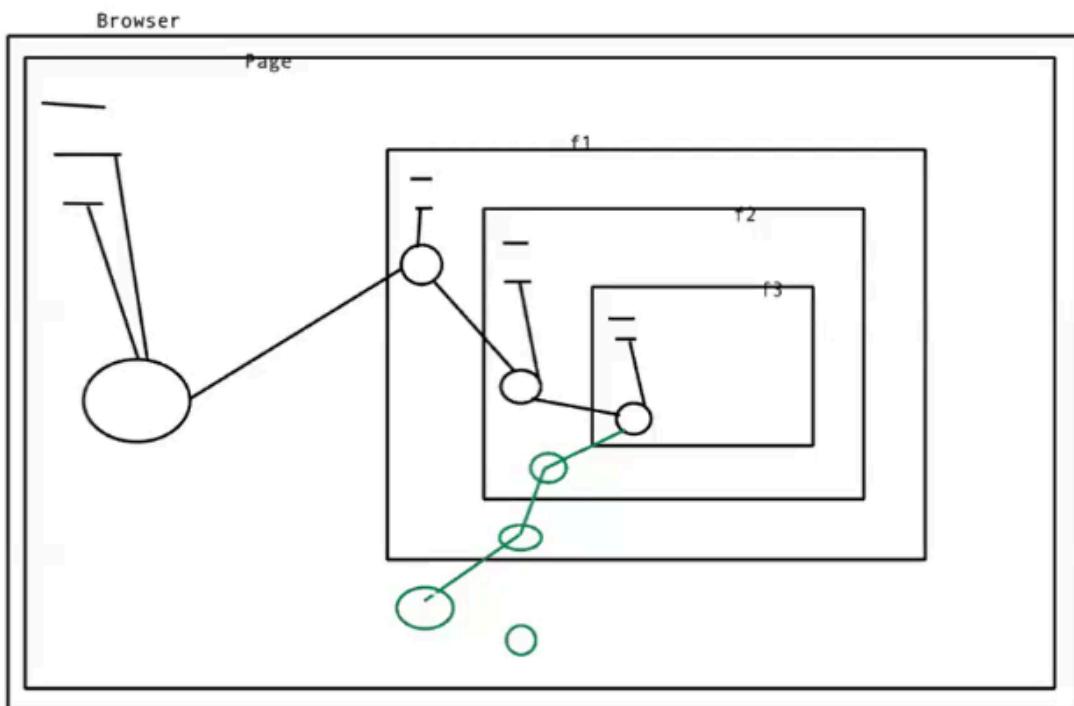
```
workspace1 - Dec2024SeleniumSessions/src/main/java/seleniumsessions/IFrameHandle.java - Eclipse IDE
terminated> [FrameHandle [Java Application] /Users/naveenautomationlabs/p2/pool/plugins/org.eclipse.jdt.core/openjdk.hotspot.jre.full.macosx.x86_64_14.0.2.v20200815-0932/rebin/java (26-Mar-2025, 7:30:07 am - 7:30:20 am)
Mar 26, 2025 9:00:11 AM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 134, returning the closest version; found: 133; Please update to a Seleni
Exception in thread "main" org.openqa.selenium.NoSuchElementException: no such element: Unable to locate element: {"method":"css
(Session info: chrome=134.0.6998.118)
For documentation on this error, please visit: https://www.selenium.dev/documentation/webdriver/troubleshooting/errors#no-such-e
Build info: version: '4.29.0', revision: '5fc1ec94cb'
```

Now switch back-

```
23
24     //switch back to the main page:
25     driver.switchTo().defaultContent();
26
27     String header = driver.findElement(By.cssSelector("h3.details__form-preview-title")).getText();
28     System.out.println(header);
29 }
30
```

```
Console Problems Javadoc Declaration Progress
<terminated> IFrameHandle [Java Application] /Users/naveenautomationlab
Mar 26, 2025 9:00:55 AM org.openqa.selenium.WebDriverException
WARNING: Unable to find an exact match for frame name 'f1'
Vehicle Registration Form
```

## Nested frames-



Go inside first frame and enter into the first text box-

```
NestedFramesHandle.java
1 package seleniumsessions;
2
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.chrome.ChromeDriver;
6
7 public class NestedFramesHandle {
8
9     public static void main(String[] args) {
10
11         WebDriver driver = new ChromeDriver();
12         driver.get("https://selectorshub.com/iframe-scenario/");
13
14         driver.switchTo().frame("pact1");//f1
15         driver.findElement(By.id("inp_val")).sendKeys("testing");
16
17
18
19 }
```

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## Memory Test

Lost

Dare for you

Switch to another iframe inside- enter into second iframe.

```
16
17         driver.switchTo().frame("pact2");//f2
18         driver.findElement(By.id("jex")).sendKeys("automation");
19
```

← → ⌂ selectorshub.com/iframe-scenario/

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Memory Test

testing

Dare for you

automation

Heaven is here

Go inside third iframe- enter into third iframe.

```
19
20     driver.switchTo().frame("pact3");//f3
21     driver.findElement(By.id("glaf")).sendKeys("Google");
22
```

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automation

Heaven is here

Google

Come back to frame 2 from frame 3-  
Parentframe - new method in selenium 4.  
Returns web driver.  
Then type something in frame2 text box.

```
22
23      //f3->f2:
24      driver.switchTo().parentFrame();
25      driver.findElement(By.id("jex")).sendKeys(" with |selenium");
26
```

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selectorhub.com/iframe-scenario/

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## Memory Test

testing

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automation with selenium

Heaven is here

Go to frame1-f

Frame 2 to frame 1.

Type something in frame1 textbox.

```
20
21
22
23
24
25
26
27      //f2->f1:
28      driver.switchTo().parentFrame();
29      driver.findElement(By.id("inp_val")).sendKeys(" in NAL");
30
```

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## Memory Test

Frame 1 to main page-

Fetch memory test header to know we are back in default.

```
30
31      //f1->page:
32      driver.switchTo().defaultContent();
33      String header = driver.findElement(By.tagName("h3")).getText();
34      System.out.println(header);
```

The screenshot shows the Eclipse IDE interface. In the top left, there's a code editor window with the above Java code. To its right is a 'Console' view which displays the output of the program. The output starts with '<terminated> NestedFramesHandle [', followed by the date and time 'Mar 26, 2025 9:', then a red warning message 'WARNING: Unable' on two lines, and finally 'Memory Test'.

```
<terminated> NestedFramesHandle [
Mar 26, 2025 9:
WARNING: Unable
Memory Test
```

Lets try to come to parent also with parentframe method-

Frame 1 to main page.  
works.

```
36      //f1->page:
37      driver.switchTo().parentFrame();
38      String header = driver.findElement(By.tagName("h3")).getText();
39      System.out.println(header);
40
```

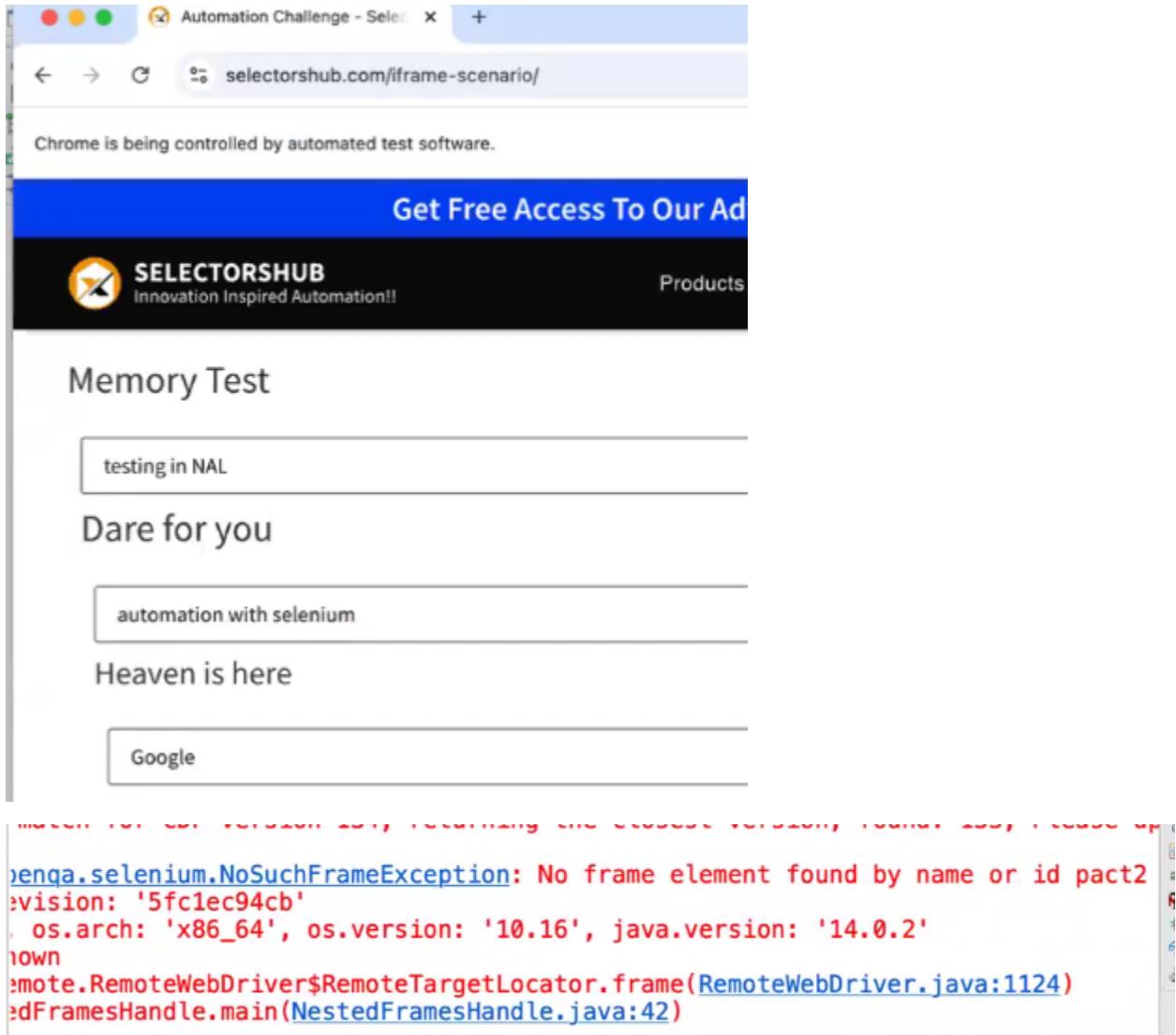
The screenshot shows the Eclipse IDE interface. In the top left, there's a code editor window with the above Java code. To its right is a 'Console' view which displays the output of the program. The output starts with '<terminated> NestedFramesHandle [Java Appl', followed by the date and time 'Mar 26, 2025 9:21:', then a red warning message 'WARNING: Unable to' on two lines, and finally 'Memory Test'.

```
<terminated> NestedFramesHandle [Java Appl
Mar 26, 2025 9:21:
WARNING: Unable to
Memory Test
```

Page to frame 2- 53.00  
Skipping frame1.

```
40
41      //page --> f2
42      driver.switchTo().frame("pact2");//f2
43      driver.findElement(By.id("jex")).sendKeys("cypress");
```

Not entered cypress.



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Memory Test

testing in NAL

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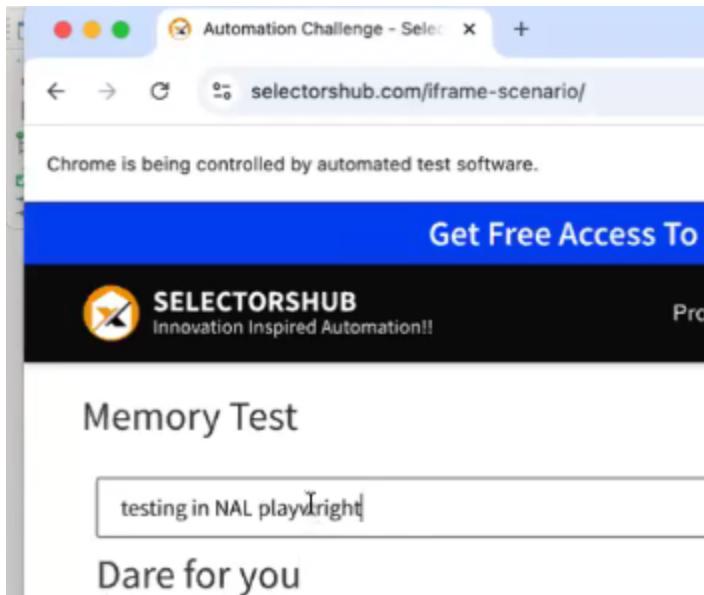
```
org.openqa.selenium.NoSuchFrameException: No frame element found by name or id pact2 revision: '5fc1ec94cb', os.arch: 'x86_64', os.version: '10.16', java.version: '14.0.2'
at sun.reflect.NativeConstructorAccessorImpl.newInstance0(Native Method)
at sun.reflect.NativeConstructorAccessorImpl.newInstance(NativeConstructorAccessorImpl.java:62)
at sun.reflect.NativeConstructorAccessorImpl.newInstance(NativeConstructorAccessorImpl.java:62)
at sun.reflect.DelegatingConstructorAccessorImpl.newInstance(DelegatingConstructorAccessorImpl.java:45)
at java.lang.reflect.Constructor.newInstance(Constructor.java:492)
at org.openqa.selenium.remote.RemoteWebDriver$RemoteTargetLocator.frame(RemoteWebDriver.java:1124)
at NestedFramesHandle.main(NestedFramesHandle.java:42)
```

Cant skip frames.

Page to frame1-55.00

Works.

```
44
45      //page-->f1:
46      driver.switchTo().frame("pact1");//f1
47      driver.findElement(By.id("inp_val")).sendKeys(" playwright");
48
```



## Frame 1 to frame 3-

```
49      //f1-->f3:  
50      driver.switchTo().frame("pact3");//f3  
51      driver.findElement(By.id("glaf")).sendKeys("MS");
```

Not entering value.

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## Memory Test

testing in NAL playwright

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```
on thread "main" org.openqa.selenium.NoSuchElementException: No frame element found
  version: '4.29.0', revision: '5fc1ec94cb'
  : os.name: 'Mac OS X', os.arch: 'x86_64', os.version: '10.16', java.version: '14'
  : driver.version: unknown ...
org.openqa.selenium.remote.RemoteWebDriver$RemoteTargetLocator.frame(RemoteWebDriver.java:101)
seleniumsessions.NestedFramesHandle.main(NestedFramesHandle.java:50)
```

Cant skip frame to frame also.

Scenarios-

```
52
53      //page -->f1: yes
54      //f1-->f2: yes
55      //f2-->f3: yes
56      //page --> f2: no
57      //page --> f3: no
58      //page -->f1-->f2-->f3: yes
59
60      //f3-->f2: yes(PF)
61      //f2-->f1: yes(PF)
62      //f1-->page : yes(PF, DC)
63      //f3-->f2(PF)-->f1(PF)
```

## Frame 3 to frame 1-

```
64          //f3 -->f1:  
65          driver.switchTo().frame("pact1");//f1  
66          driver.findElement(By.id("inp_val")).sendKeys(" manual");  
67  
68
```

Not entering.

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### Memory Test

testing

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automation

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Google

```
<terminated> NestedFramesHandle [Java Application] /users/naveenautomationia/Downloads/pz/pool/plugins/org.eclipse.justj.openjdk.hotspot.jre.runtime.macosx.x86_64_14.0.2.v20200815-0955/jre/bin/java [-Xbootclasspath/a:/Library/Java/JavaVirtualMachines/jdk1.8.0_261.jdk/Contents/Home/lib/jrt-fallback.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_261.jdk/Contents/Home/jre/lib/server/libjvm.dylib]
```

Mar 26, 2025 9:32:24 AM org.openqa.selenium.devtools.CdpVersionFinder findNearestCdpVersion  
WARNING: Unable to find an exact match for CDP version 134, returning the closest available version 133  
Exception in thread "main" org.openqa.selenium.NoSuchFrameException: No frame element found with id 'f3'  
Build info: version: '4.29.0', revision: '5fc1ec94cb'  
System info: os.name: 'Mac OS X', os.arch: 'x86\_64', os.version: '10.16', java.version: '11.0.15'  
Driver info: driver.version: unknown  
at org.openqa.selenium.remote.RemoteWebDriver\$RemoteTargetLocator.frame(RemoteWebDriver.java:710)  
at seleniumsessions.NestedFramesHandle.main(NestedFramesHandle.java:66)

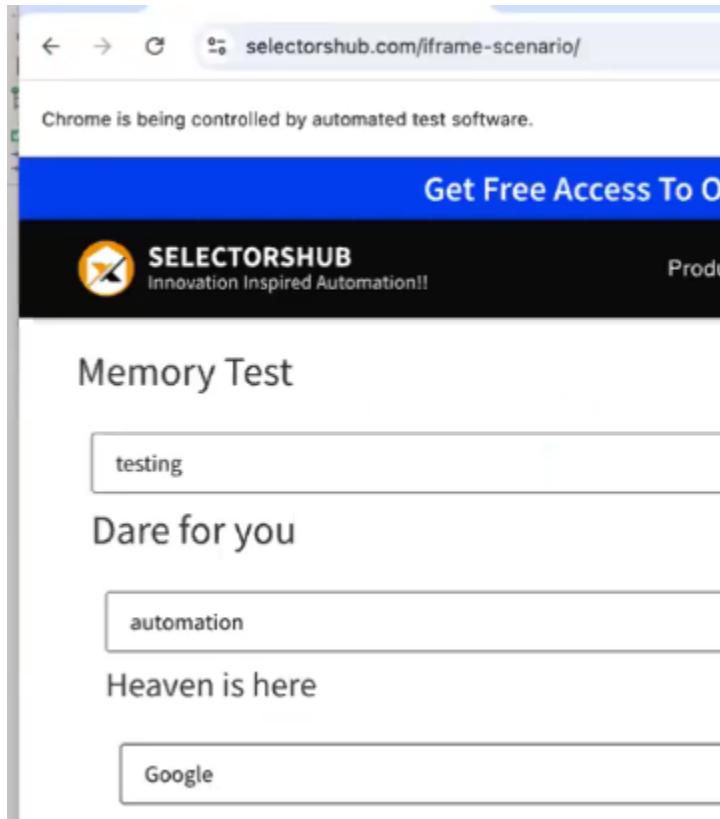
Not in sequence so wont work.

Frame 3 to page-

Default content method -

Returns web driver.  
Selects either first frame on page or main document when page has iframes.  
Check if the header memory test present on main page.

```
68
69      //f3-->page
70      driver.switchTo().defaultContent();
71      String header = driver.findElement(By.tagName("h3")).getText();
72      System.out.println(header);
```



Help

eeleniumSessions/src/main/java/eeleniumsessions/Nest

Console Problems Javadoc Declaration

<terminated> NestedFramesHandle [Java Application] /Users/navneet/

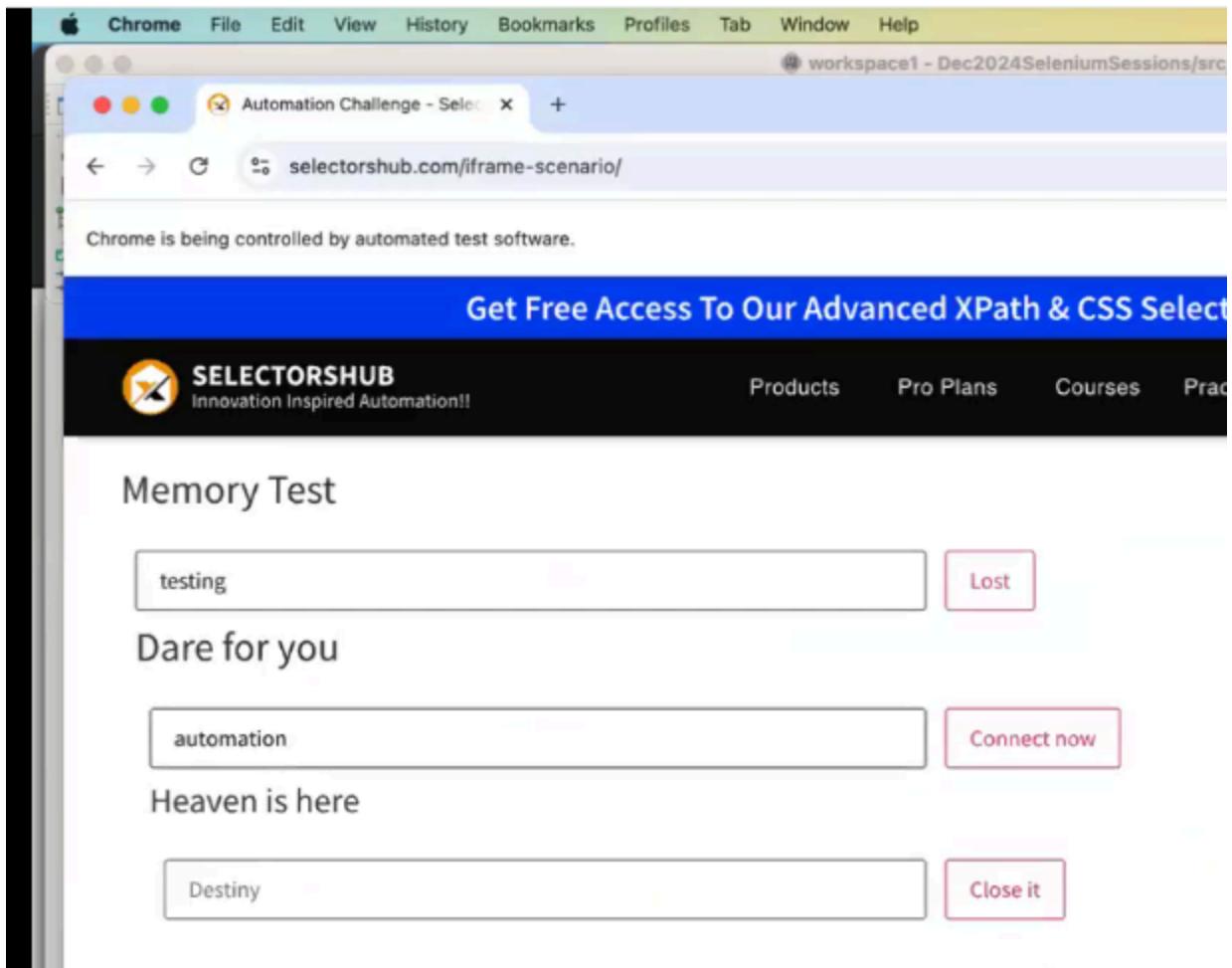
Mar 26, 2025 9:34:18 AM on  
WARNING: Unable to find an  
Memory Test

Works fine.

Skipping allowed backwards.

Frame 2 to page-

```
15
74 //f2-->page:
75     driver.switchTo().defaultContent();
76     String header = driver.findElement(By.tagName("h3")).getText();
77 | System.out.println(header);
```



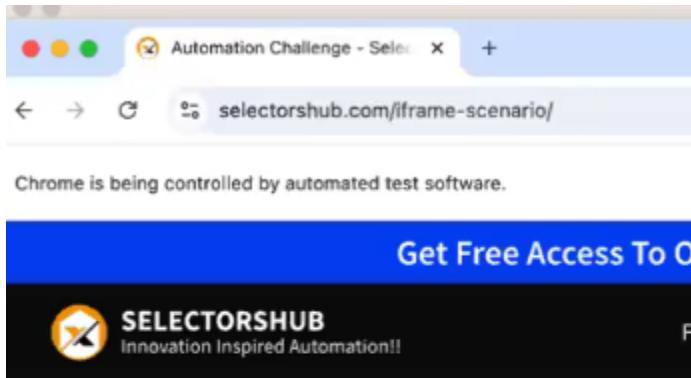
Works fine.

Reverse direction to main page fine from any level if we use default content. Parent frame will go one level up only.

Frame returns webdriver.

# Clubbing statements and writing.

```
13
14
15     //page --> f1 --> f2 --> f3 -- ele
16     driver.switchTo().frame("pact1")
17         .switchTo().frame("pact2")
18             .switchTo().frame("pact3")
19                 .findElement(By.id("glaf")).sendKeys("Google");
20
```



## Memory Test

First Crush

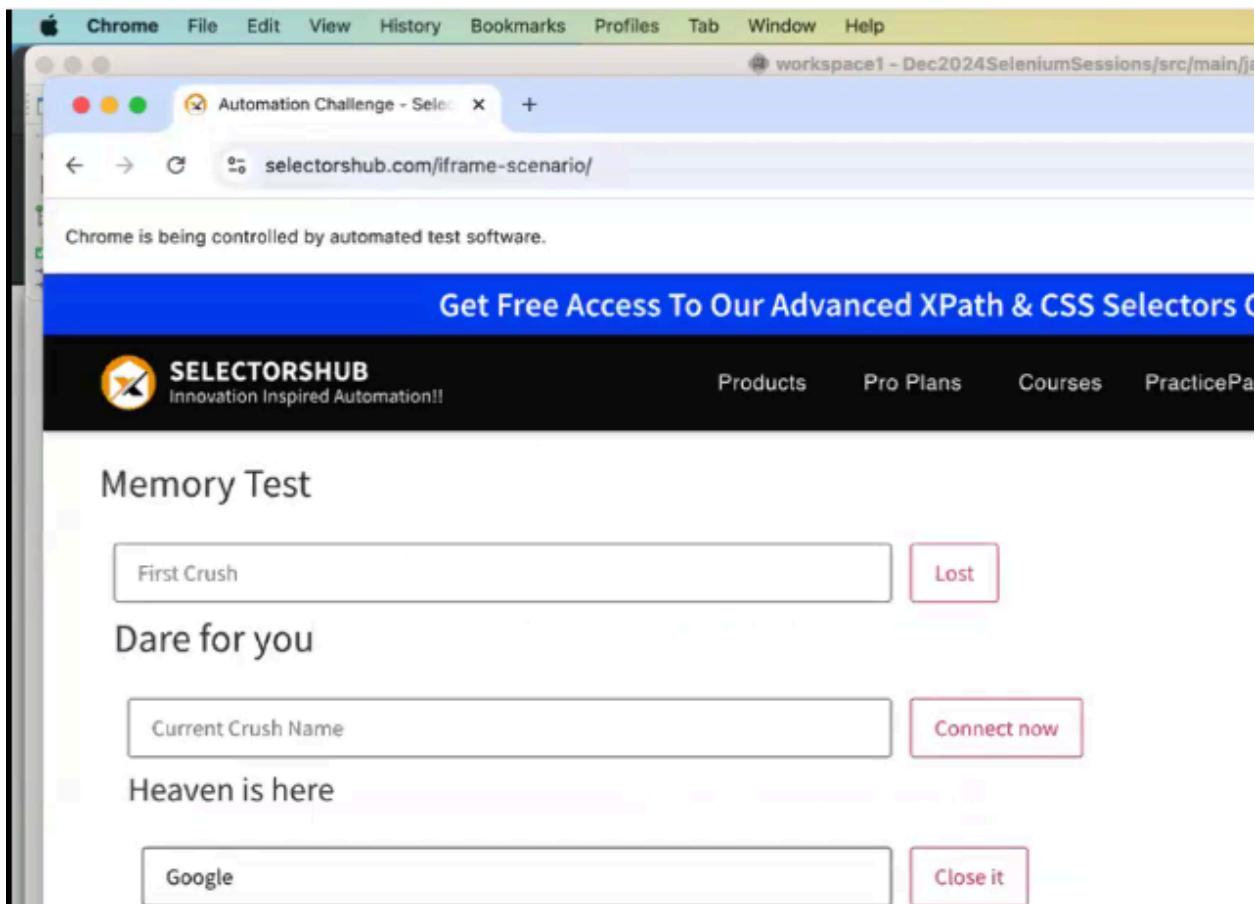
Dare for you

Current Crush Name

Heaven is here

Google

Ocd.



## Another clubbing- 1.10

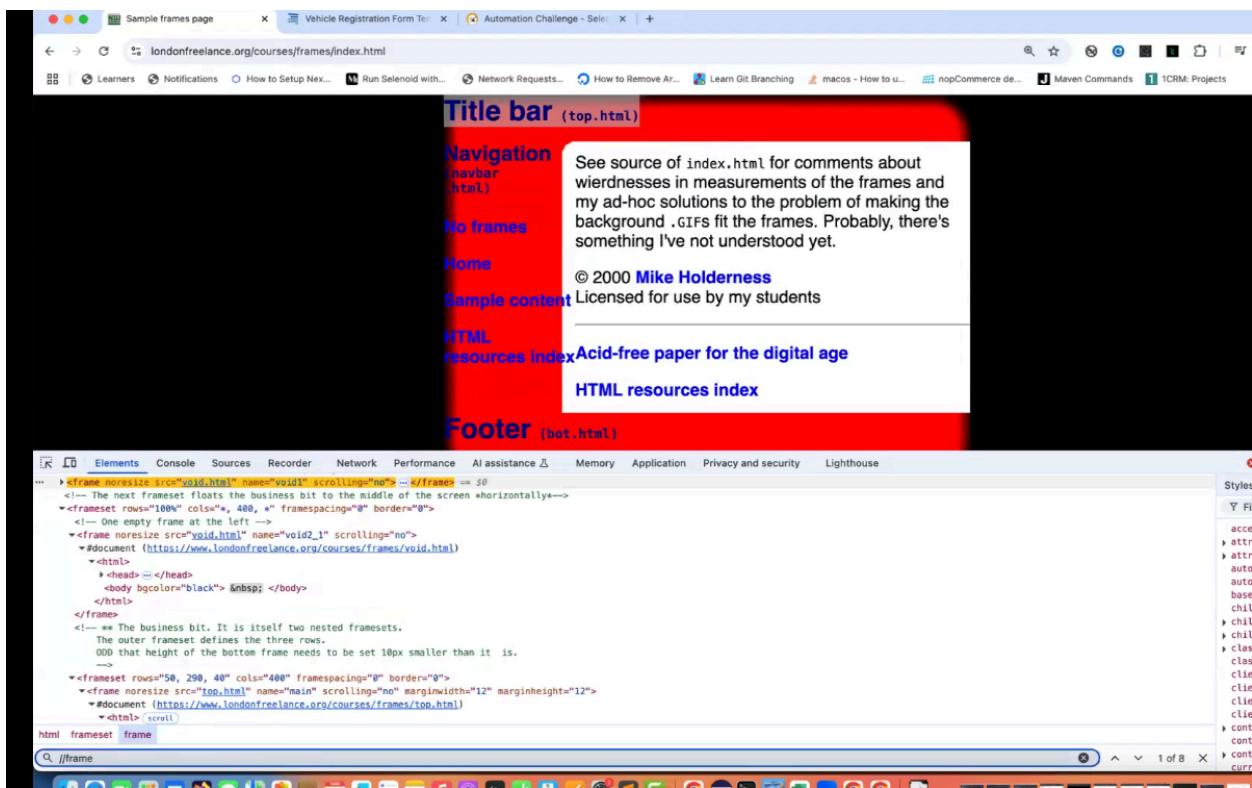
Come back to parent and capture header memory test.

```
21      String header = driver.switchTo().frame("pact1")
22          .switchTo().frame("pact2")
23              .switchTo().frame("pact3")
24                  .switchTo().parentFrame()
25                      .switchTo().parentFrame()
26                          .switchTo().defaultContent()
27                              .findElement(By.tagName("h3")).getText();
28
29      System.out.println(header);
```

The screenshot shows the Eclipse IDE's Console view. The title bar says "Console". The message area displays the following text in red:

```
<terminated> NestedFramesHandle [Java Application] /Use
Mar 26, 2025 9:41:39 AM
WARNING: Unable to find
Memory Test
```

Another way to check if frame present-  
Search by frame or iframe.



You see  $\frac{1}{8}$ .

Third way to check-

Right click on page and you should see view frame source.

