How to inspect elements in web browsers

This is the second tutorial in the selenium-java series. In this tutorial we are going to study how to inspect elements in different web browsers!

What you will Learn:
ChroPath to inspect elements in Chrome browser
Inspect elements in firefox browser
Inspect elements in IE browser

ChroPath to inspect elements in Chrome browser:
In selenium everything is considered as an object, even the webpage is an object in selenium. First we will identify the objects by inspecting them & then will interact with them. There are various object identifying strategies which we will be discussing now. Chropath is the plugin that we use for chrome browsers (to inspect web elements). To install this plugin, follow below steps:

1. Open chrome browser
2. Google for 'ChroPath plugin' OR go to https://chrome.google.com/webstore/detail/chropath/ljngjbnaijcbncmcnjfhigebomdlkcjo?hl=en

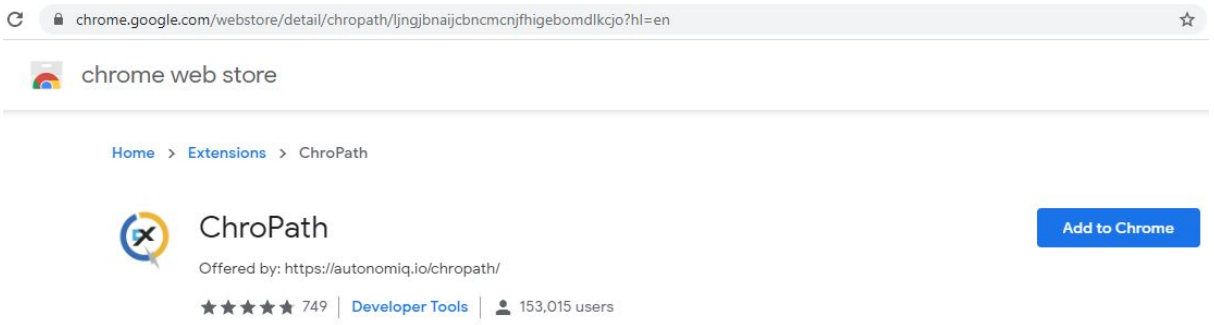

Figure 1

3. Click 'Add to chrome', the following pop-up comes

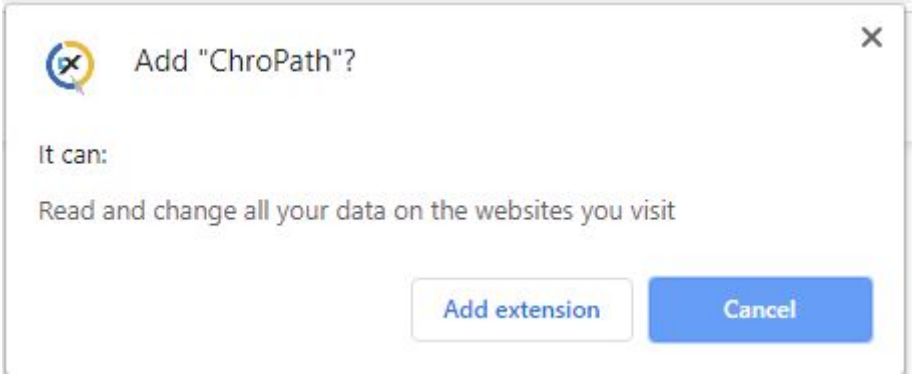

Figure 2

4. Click ‘Add extension’, the plugin gets added in chrome browser, as can be seen below

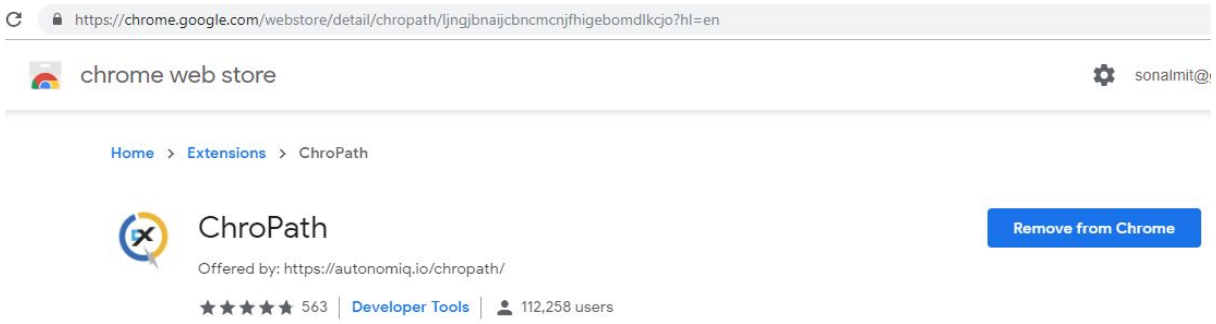

Figure 3

5. Open a new chrome browser & see right hand side top, you will see ChroPath icon

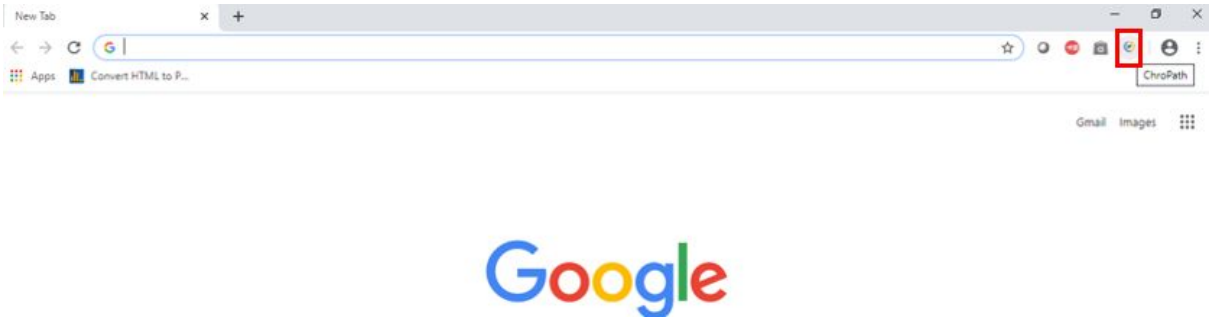

Figure 4

6. In the chrome browser, navigate to google.com & right click anywhere on the browser page. You would see ‘Inspect’

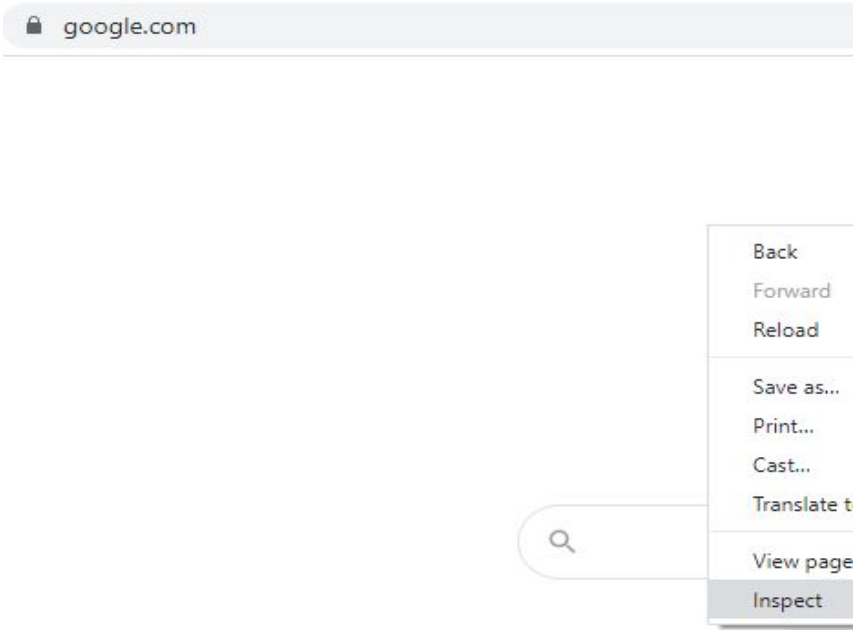

Figure 5

7. Click Inspect. At right hand side bottom, you will see double arrow mark >>

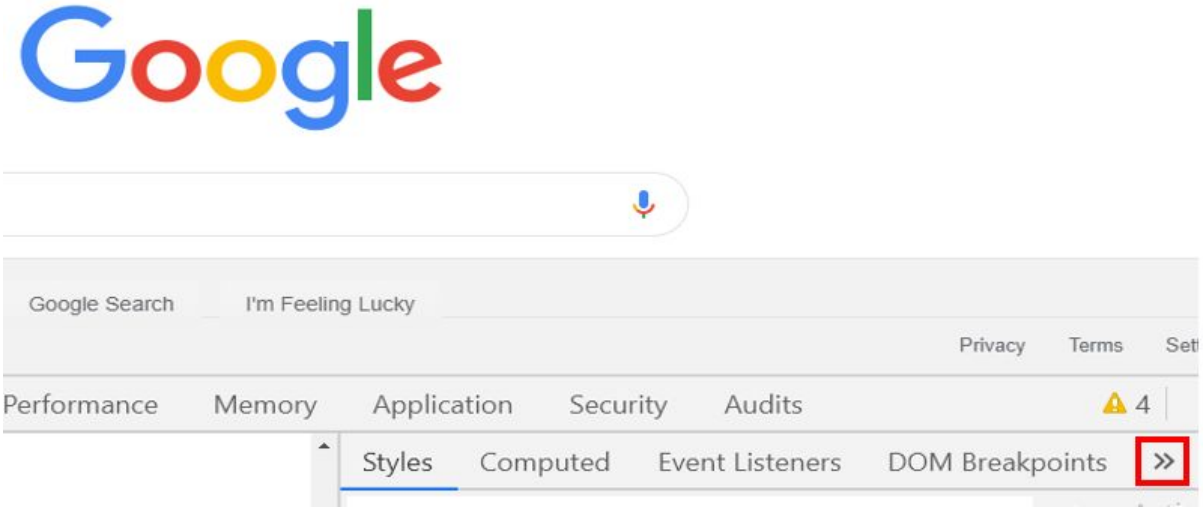

Figure 6

8. Click double arrow mark >> ,you will see 'ChroPath' at the bottom

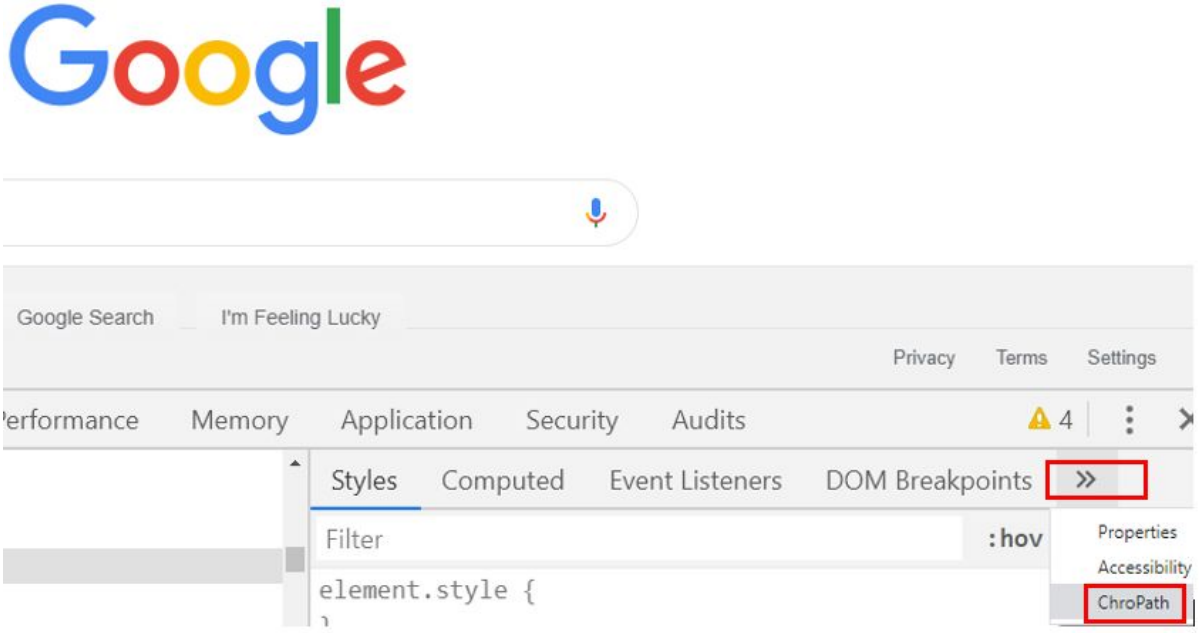

Figure 7

Click ChroPath, you now see the ChroPath section

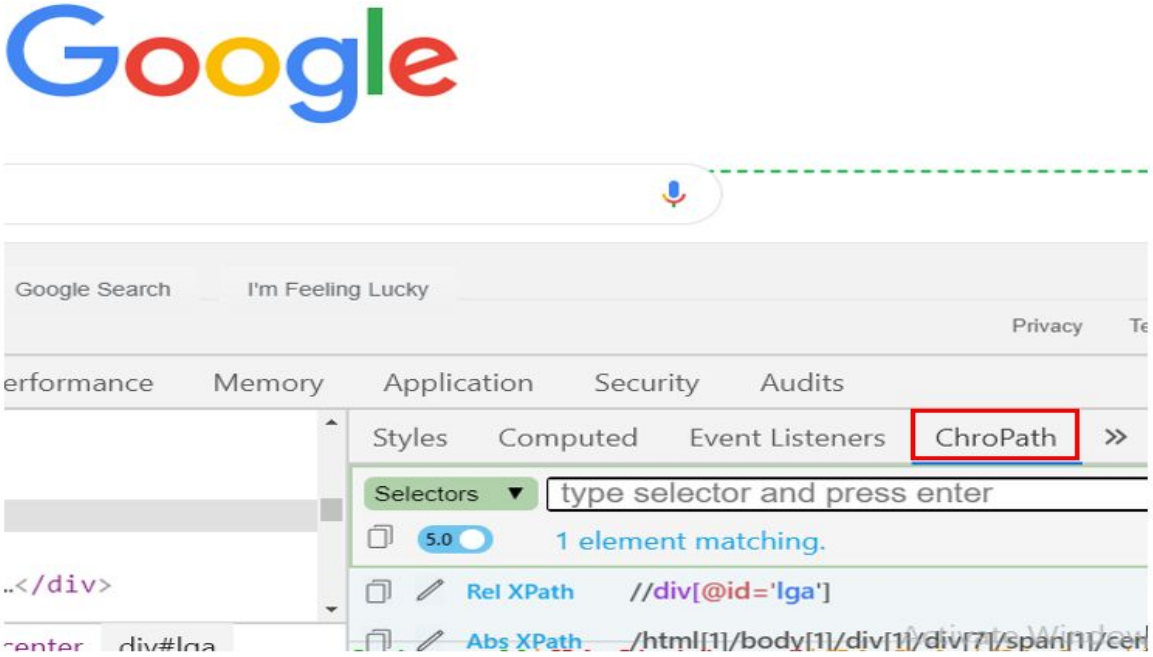

Figure 8

9. In the ChroPath section, you will see 'Selectors' dropdown

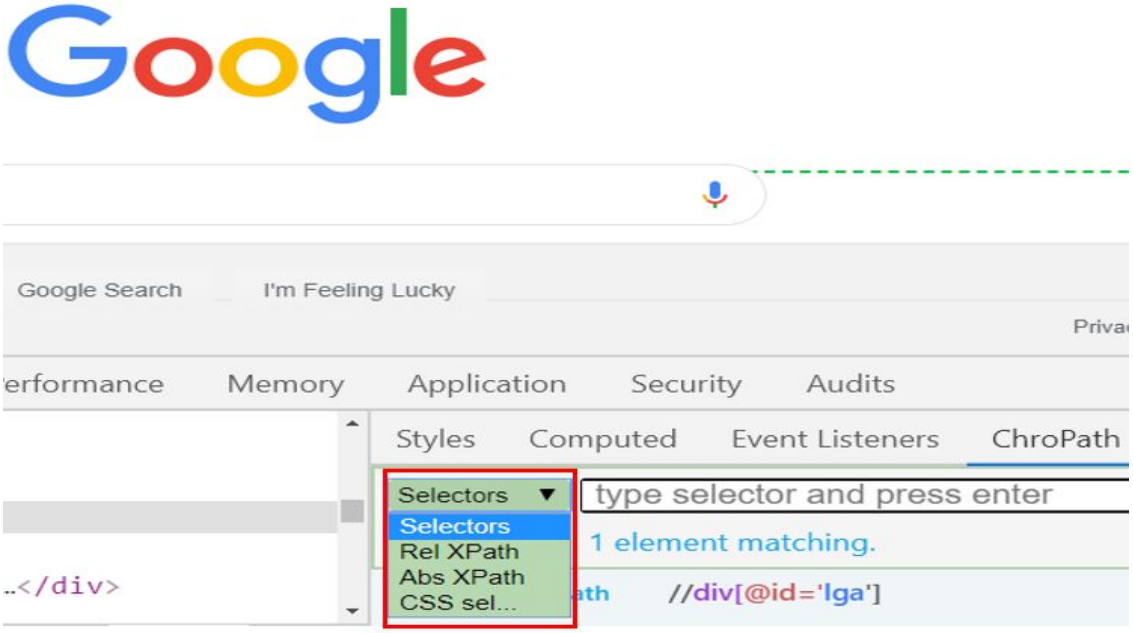

Figure 9

10. Click the arrow mark  that you see in the left hand side menu panel

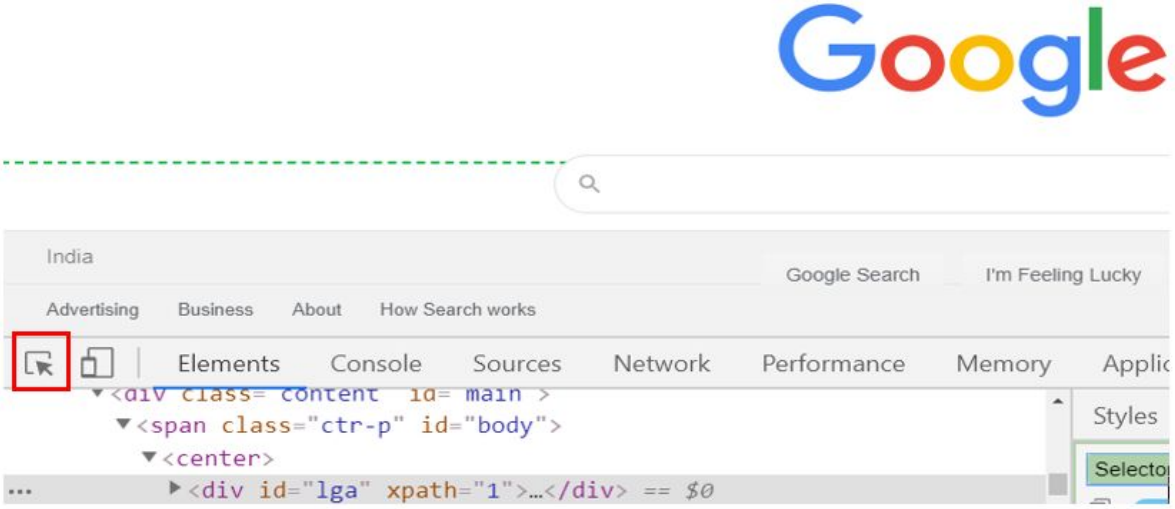

Figure 10

11. Now click google search text box, you will than see the dotted lines around the google search text box

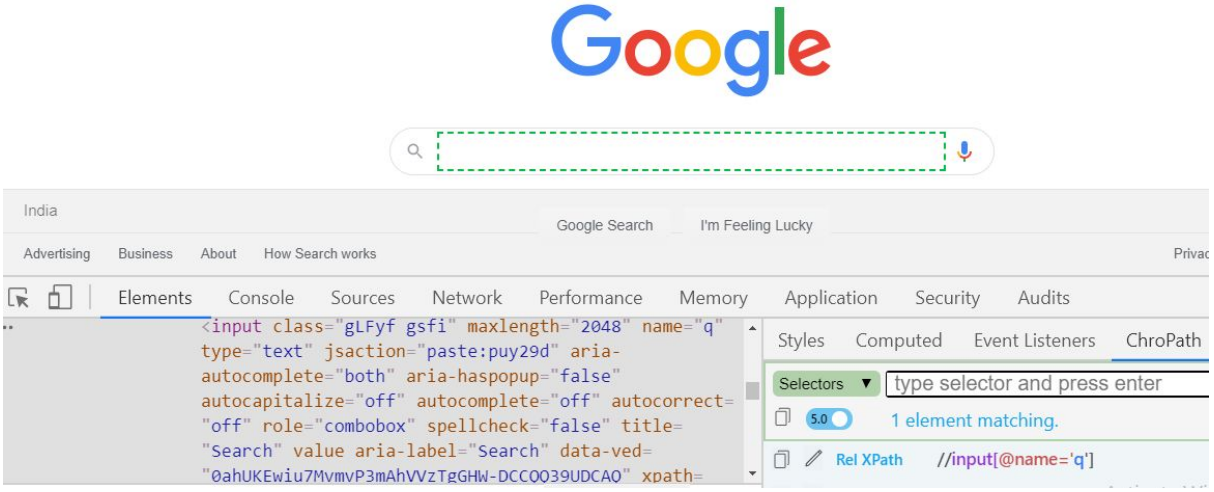

Figure 11

12. Click ‘Selectors’ dropdown and select ‘Rel XPath’ from the dropdown

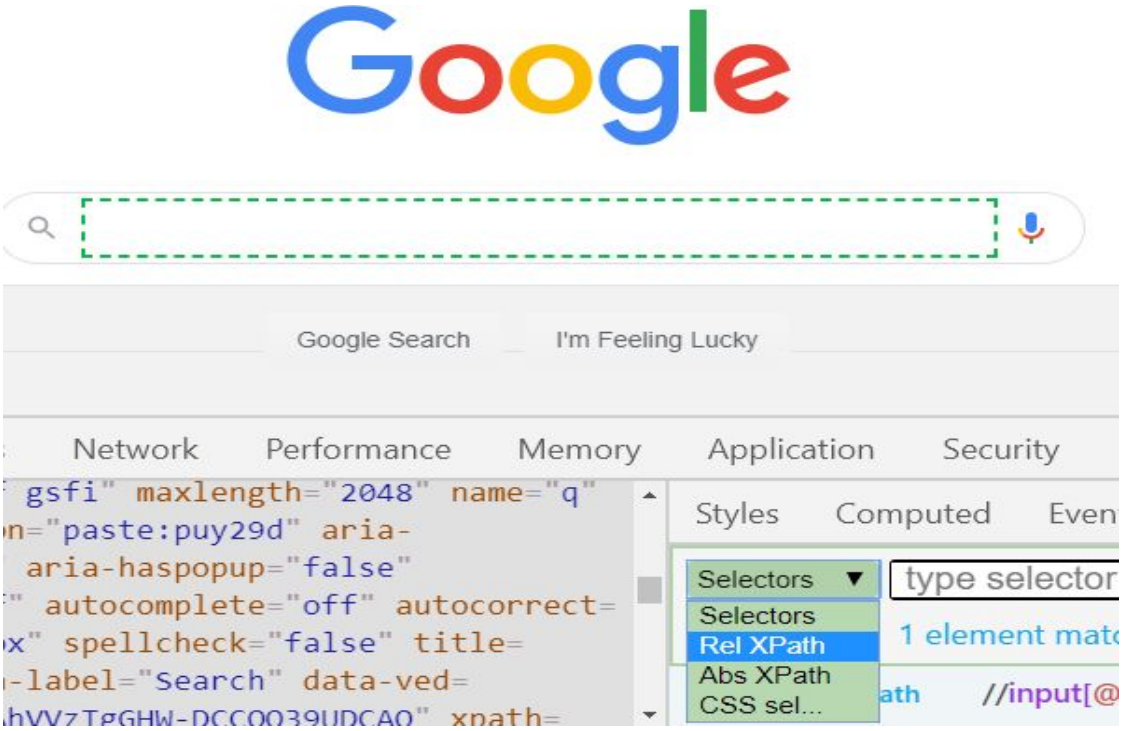

Figure 12

13. Now if you see below, you see the text “1 element matching”. What this means is that, there is only 1 element (the search text box) on this webpage that matches the relative xpath. This xpath is represented by the combination of ‘input’ tag & ‘name’ attribute whose value is ‘q’ viz //input[@name=’q’]. You can also see on the left hand side that this text box is represented by ‘input’ tag having ‘name’ attribute whose value is ‘q’

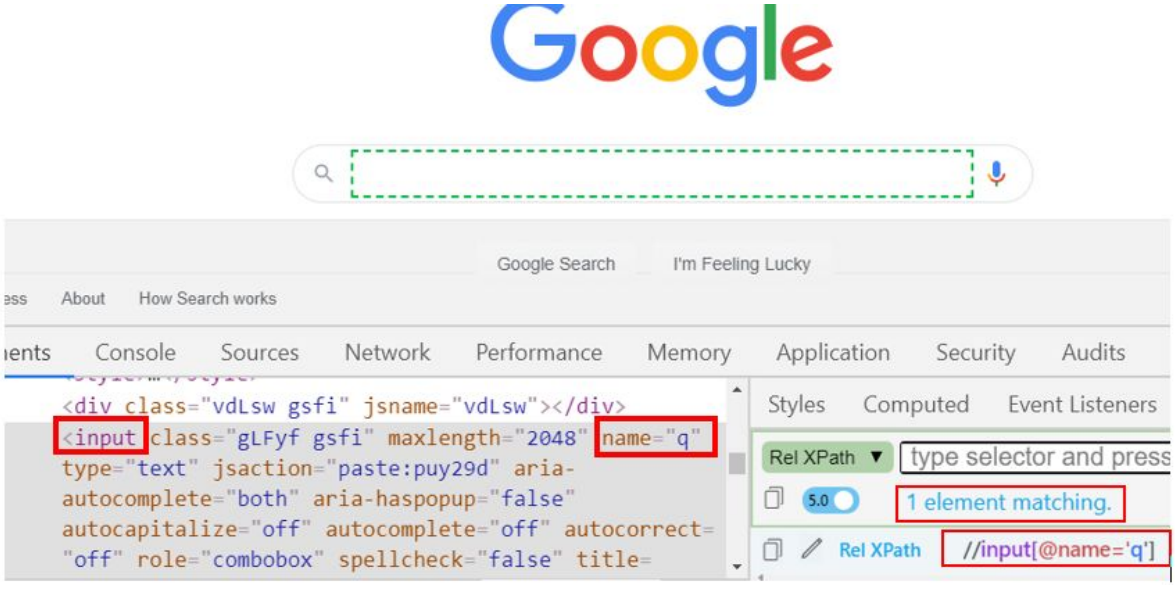

Figure 13

14. Html language is a combination of tags and attributes. Anything that starts with conical brackets is a tag, so above, input is the tagname & its attributes are type, name etc

15. Click pencil icon , the relative xpath will than appear in the text field

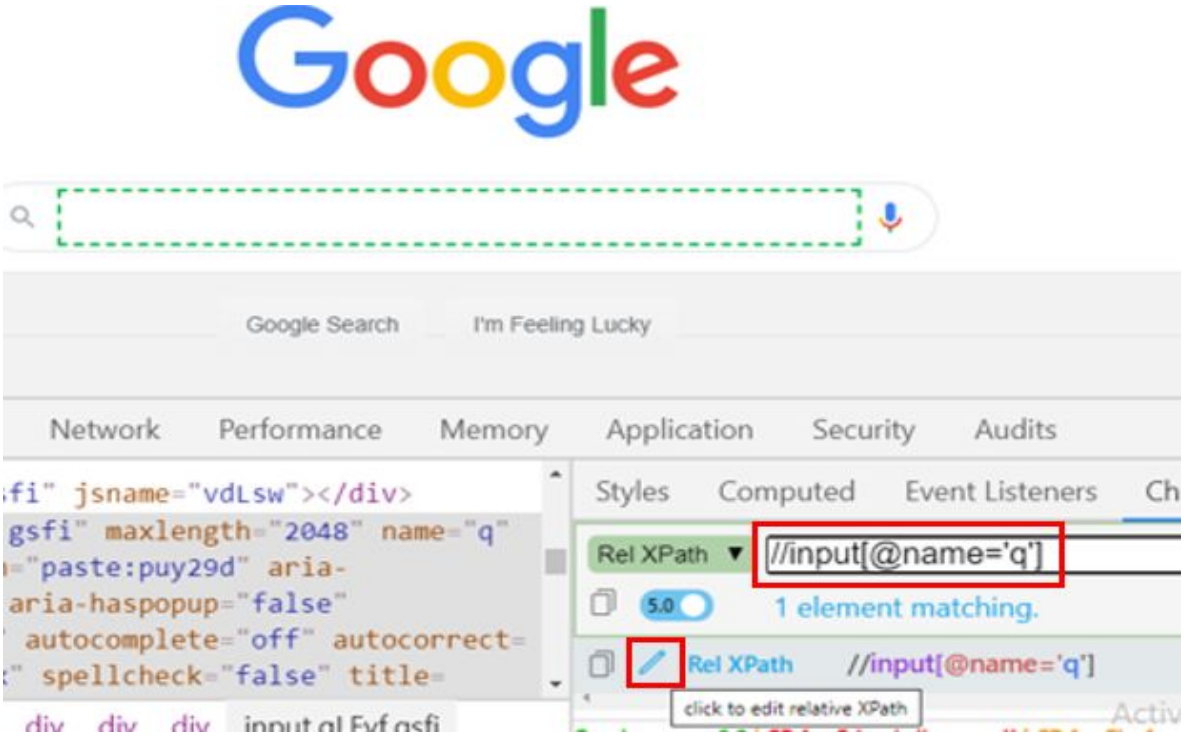

Figure 14

16. Let us edit the xpath & make it incorrect by writing numeric 1 viz //input[@name='q**1**']

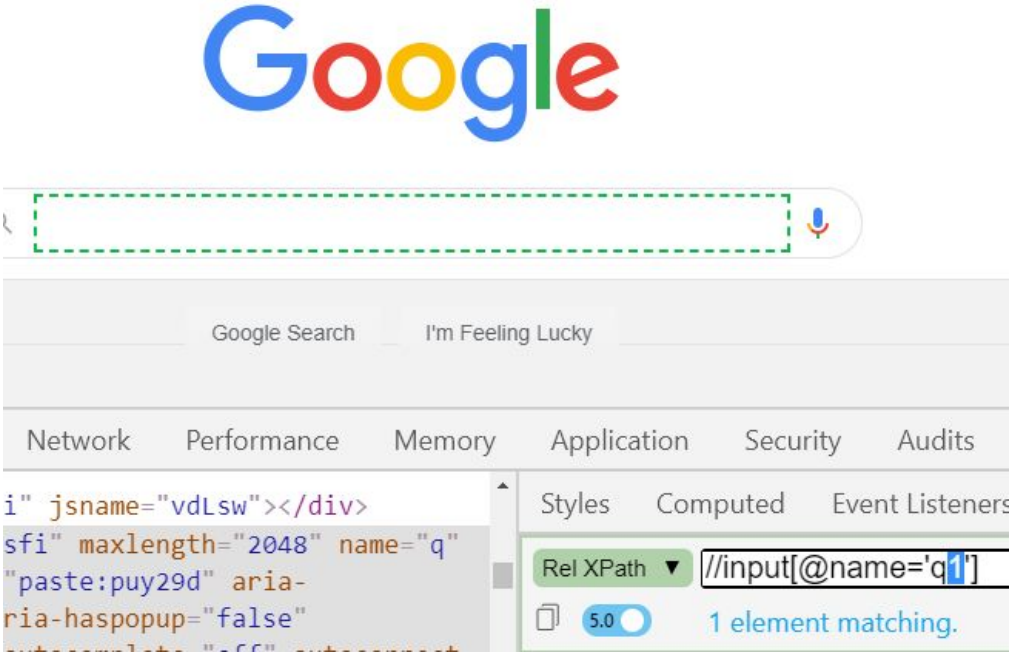

Figure 15

17. Hit enter, you see the text "0 element matching". The reason being, none of the element on this webpage has this xpath. You will also see that the google text box that was highlighted earlier with dotted lines is no more highlighted

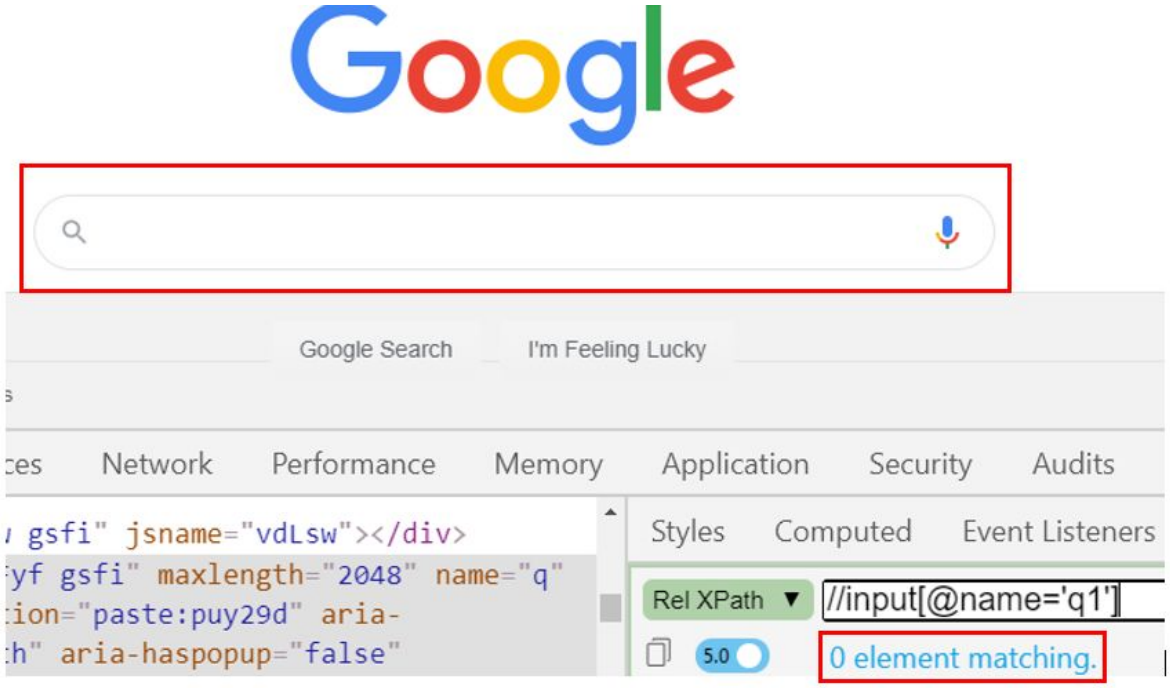

Figure 16

18. Let us re-edit and correct the xpath. Hit enter. We again see the dotted lines around google text box and see the text “1 element matching”.

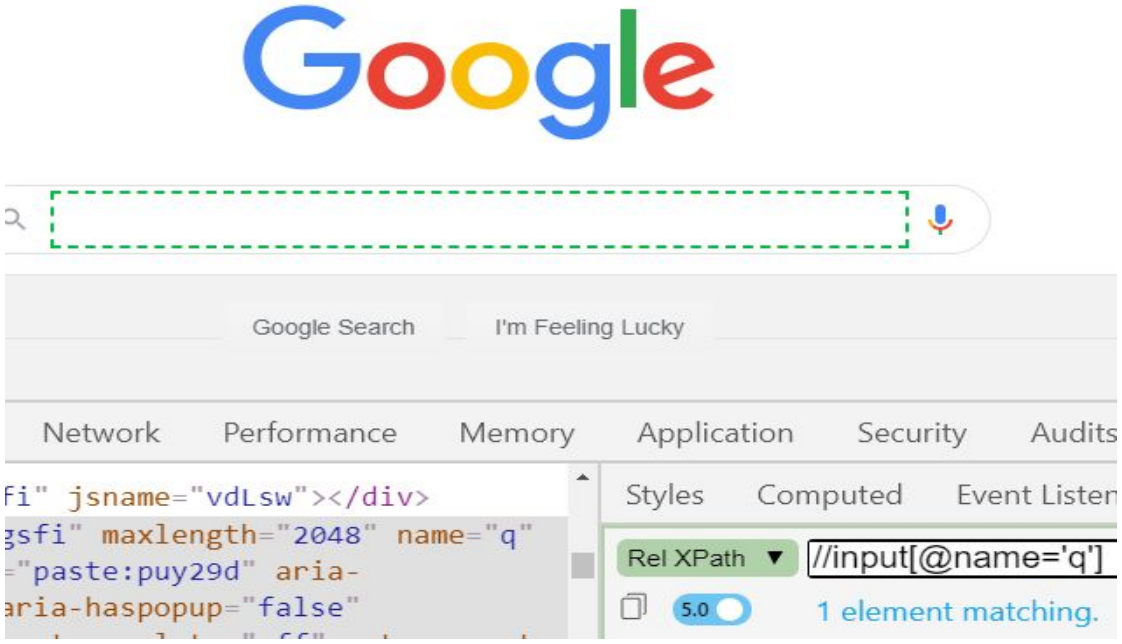

Figure 17

19. Let us now inspect ‘Google Search’ submit button
20. Click  > click ‘Google Search’ submit button > select ‘Rel XPath’ from selector dropdown > click pencil icon > hit enter > ‘Google Search’ button gets highlighted

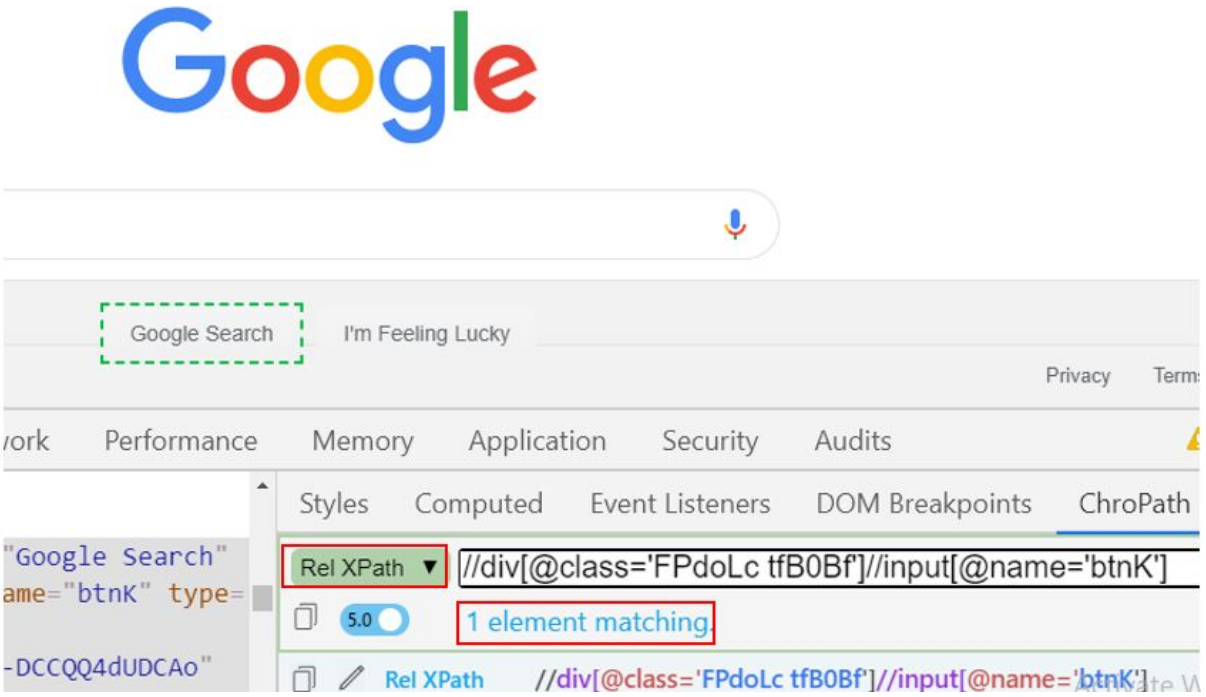

Figure 18

21. Edit the xpath to make it incorrect >hit enter >0 element matching

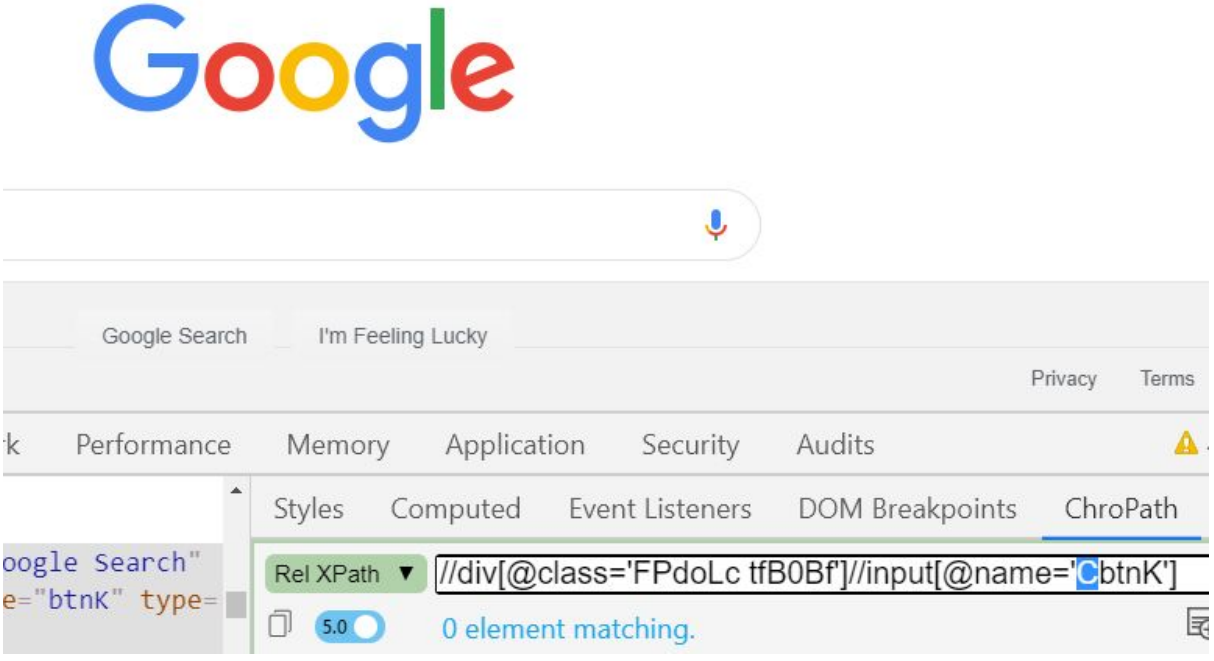

Figure 19

22. Click pencil icon again, the xpath will automatically get corrected

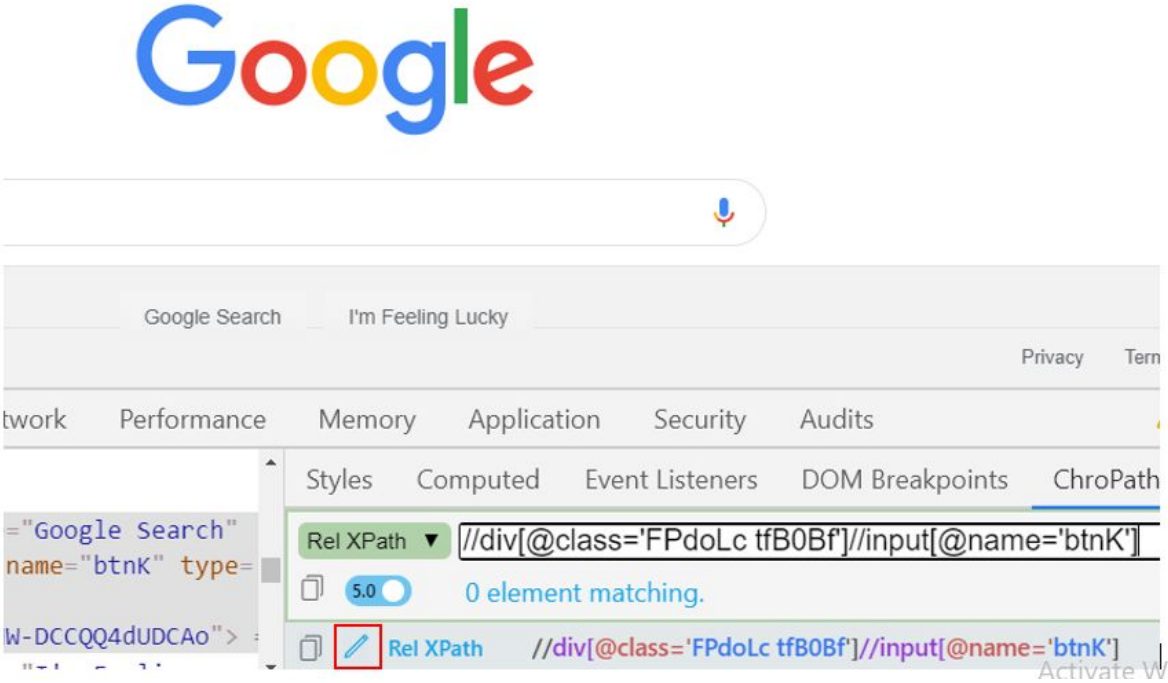

Figure 20

23. Hit enter > 'Google Search' button gets highlighted again

Figure 21

24. Next to 'Google Search' button, you can see 'I'm Feeling Lucky' button.

25. Click  > click "I'm feeling lucky" > click pencil icon > Hit Enter > 1 element matching and the dotted line around "I'm feeling lucky". You can also see that this element is represented by 'input' tag. One of its attributes is 'value' attribute whose value is "I'm Feeling Lucky"

Figure 22

26. Try to inspect 'search by voice' element that you see next to search text box

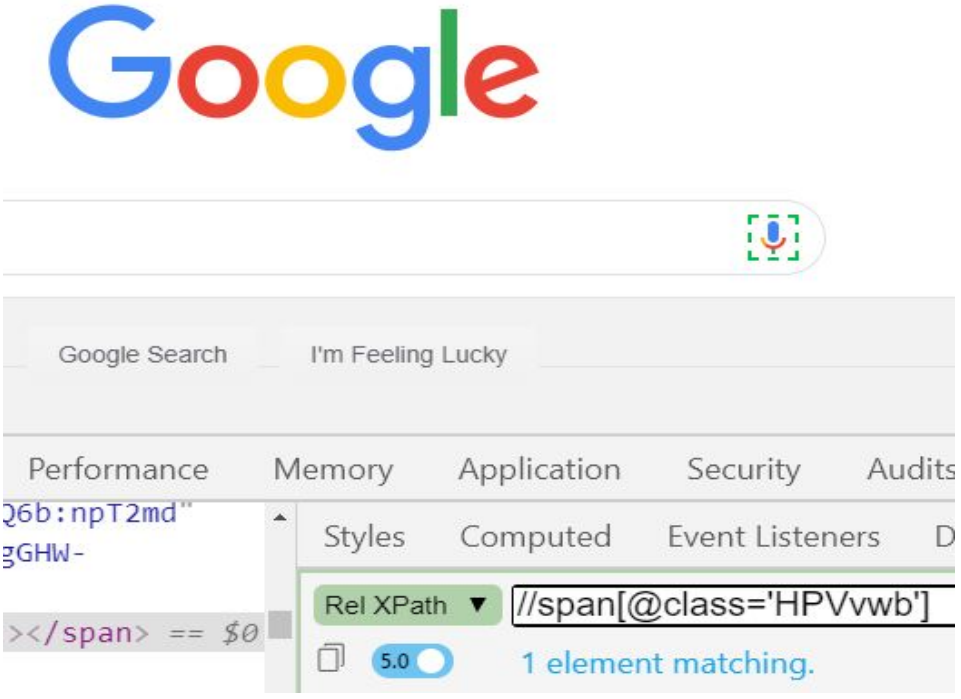

Figure 23

27. Try to inspect ‘Advertising’ link

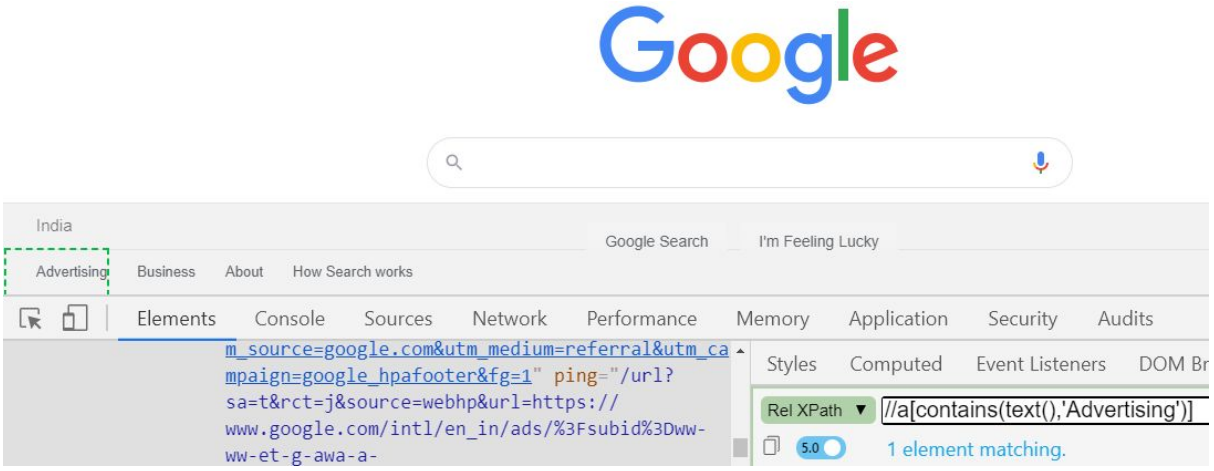

Figure 24

28. Try to inspect “Business” link

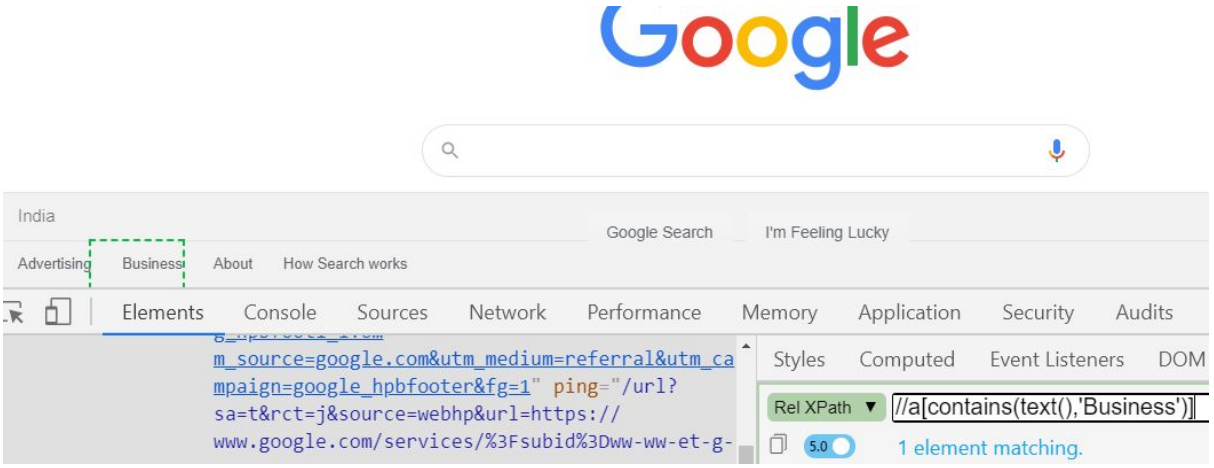

Figure 25

29. Try to inspect “About” link

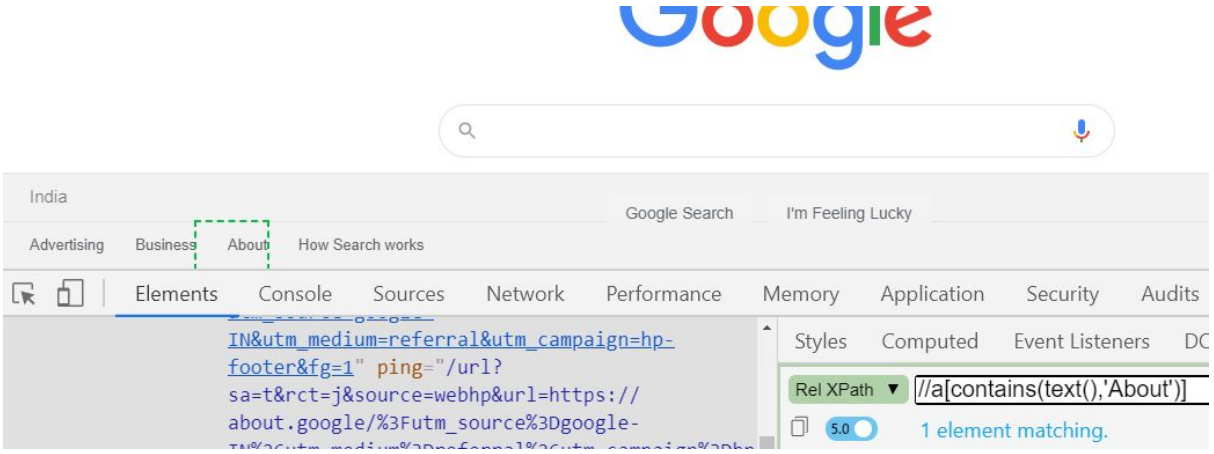

Figure 26

30. Try to inspect “How search works” link

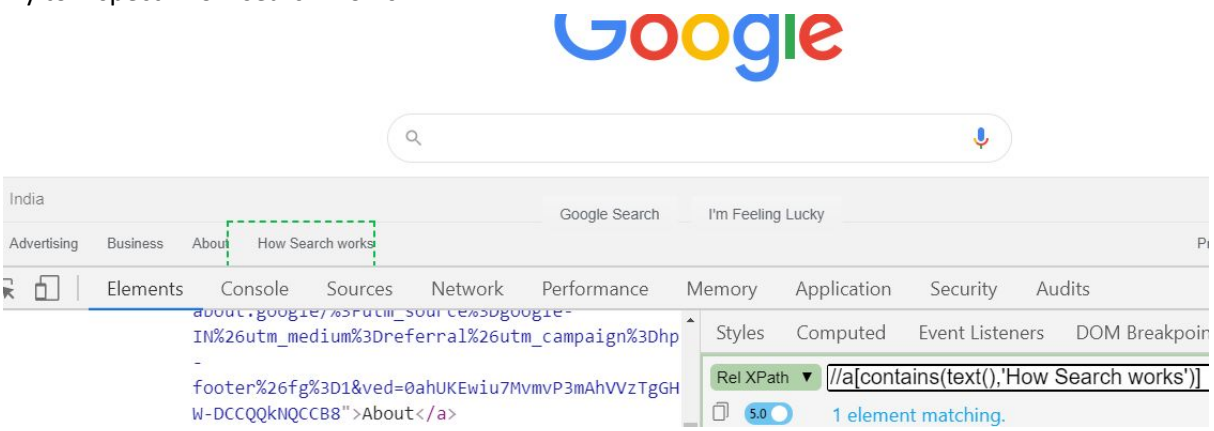

Figure 27

31. Try to inspect “Privacy” link

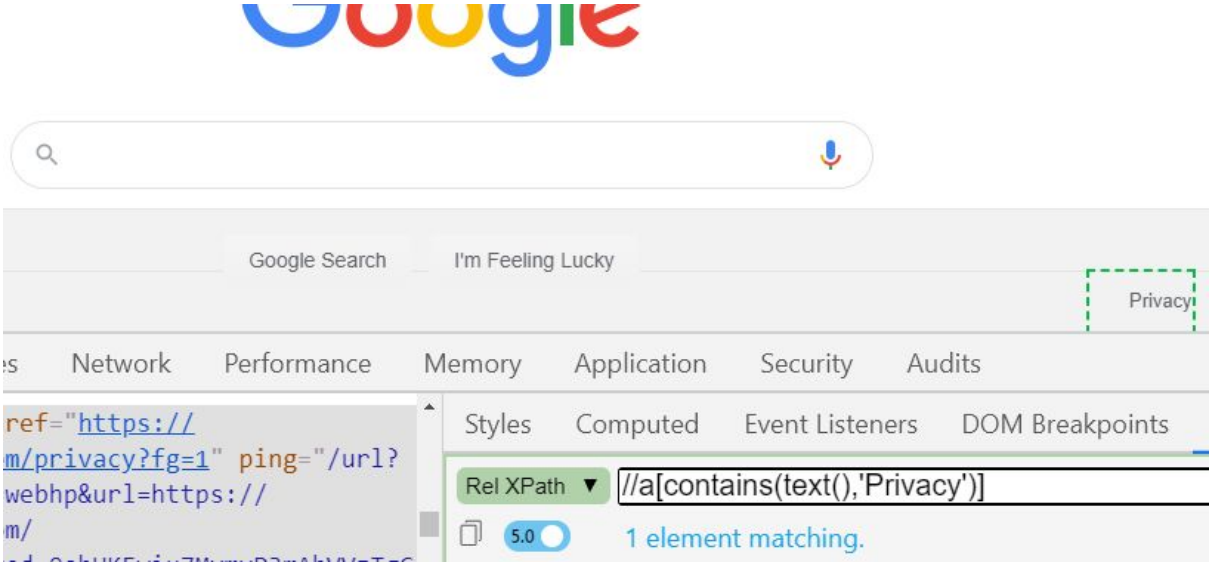

Figure 28

32. Try to inspect “Terms” link

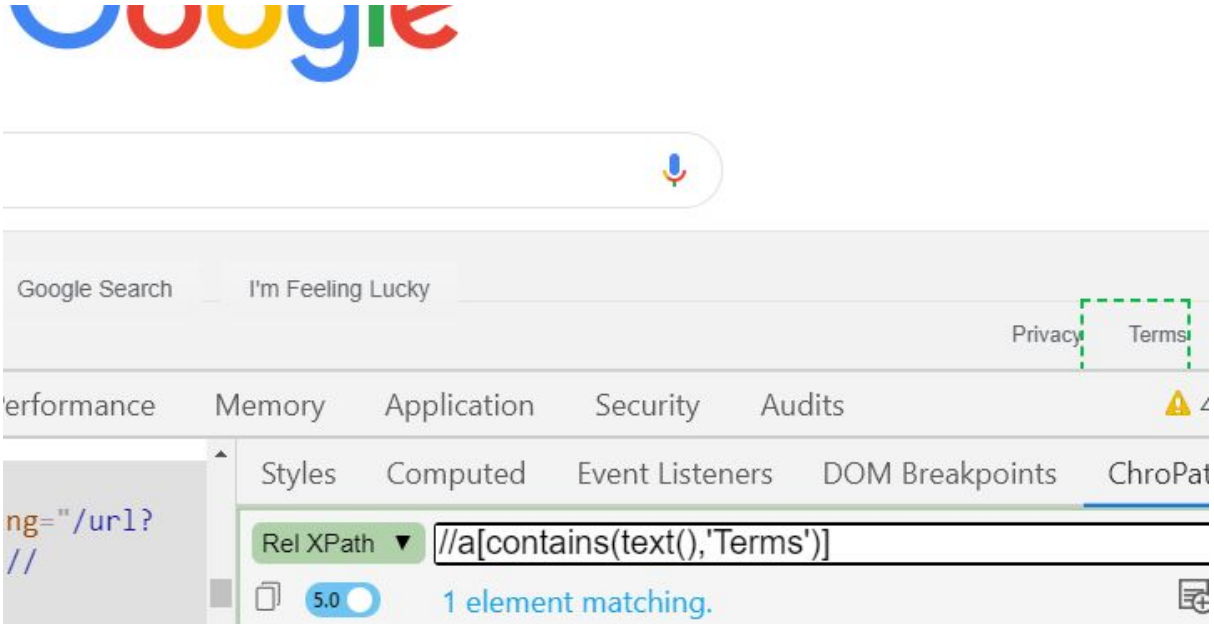

Figure 29

33. Inspect “Settings” link

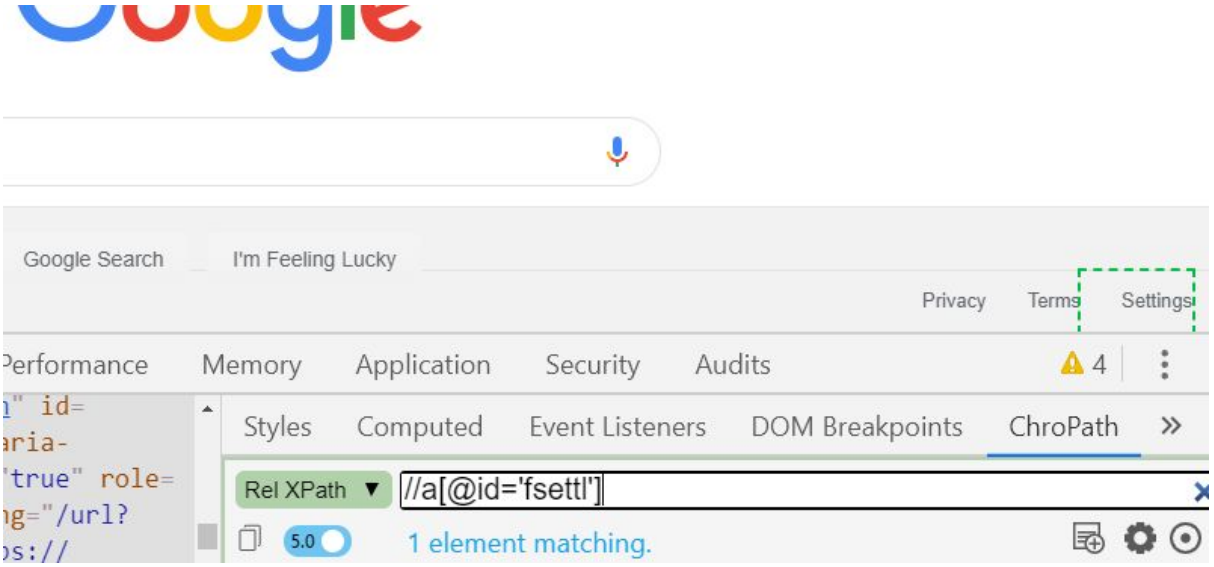

Figure 30

So this is how we can use Chropath to inspect elements in chrome browser. This is very simple to use.

Inspect elements in firefox browser:
ChroPath cannot be used with firefox browser. To inspect elements in firefox browser, open firefox browser > google.com > Right click >click ‘Inspect Element’ to inspect elements

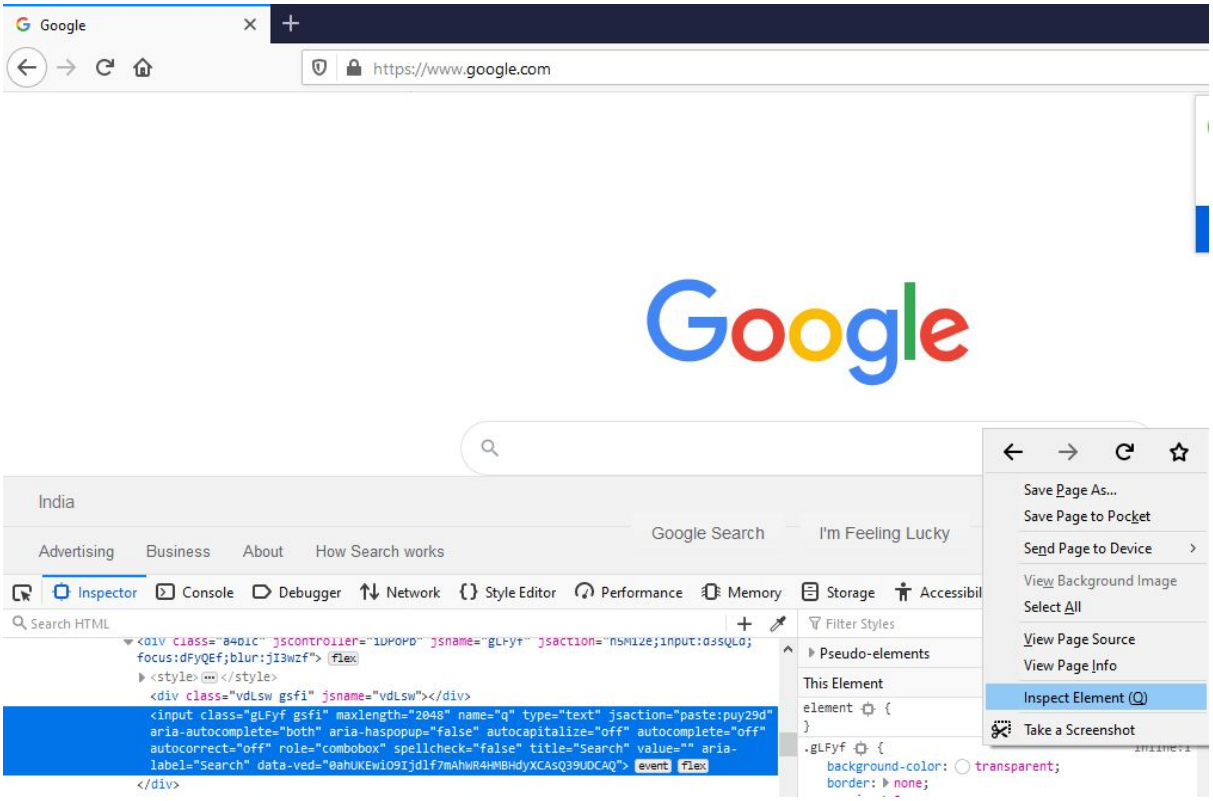

Figure 31

Inspect elements in IE browser:

ChroPath cannot be used with IE browser. To inspect elements in IE browser, open IE browser > google.com > Right click > click 'Inspect element' to inspect elements

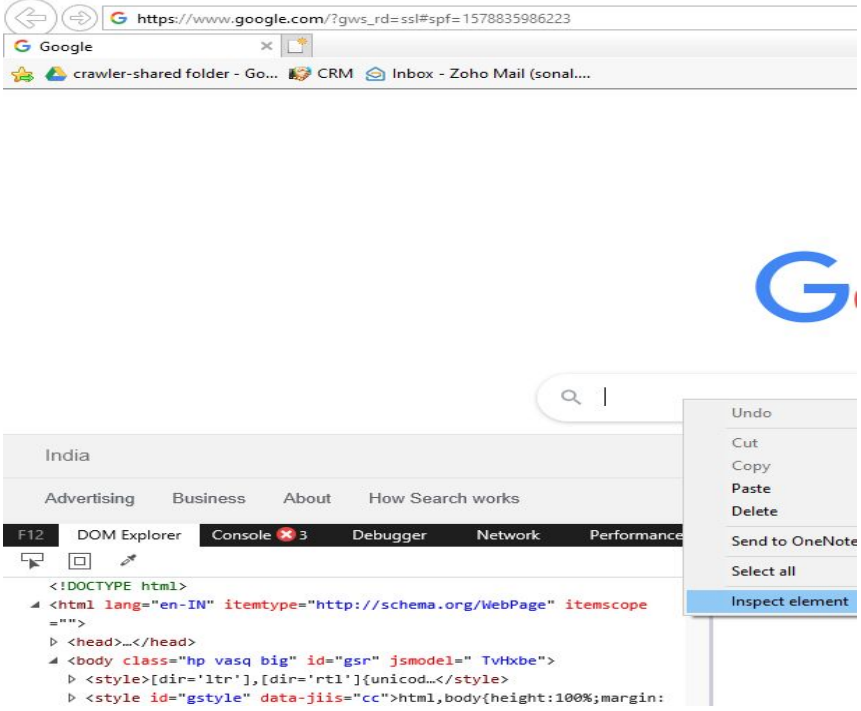

Figure 32

We will be using chrome browser for our automation because it's quite easy to work with Chropath.