

Using Contains, Sibling, Ancestor to Find Element in Selenium

If a simple XPath is not able to find a complicated web element for our test script, we need to use the functions from XPath 1.0 library. With the combination of these functions, we can create more specific XPath. Let's discuss a 3 such functions –

1. Contains
2. Sibiling
3. Ancestor

Let's study them in detail -

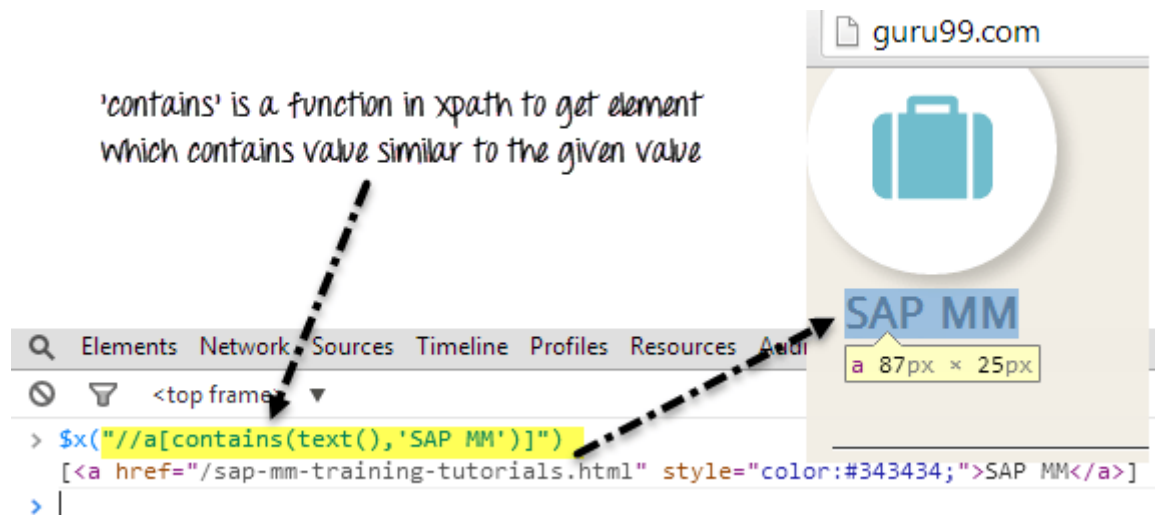
Contains: By using 'contains' function in XPath, we can extract all the elements which matches a particular text value.

Ex. Here we are searching an anchor .contains text as 'SAP M'.

```
"/h4/a[contains(text(),'SAP M')]"
```

Selenium Ti

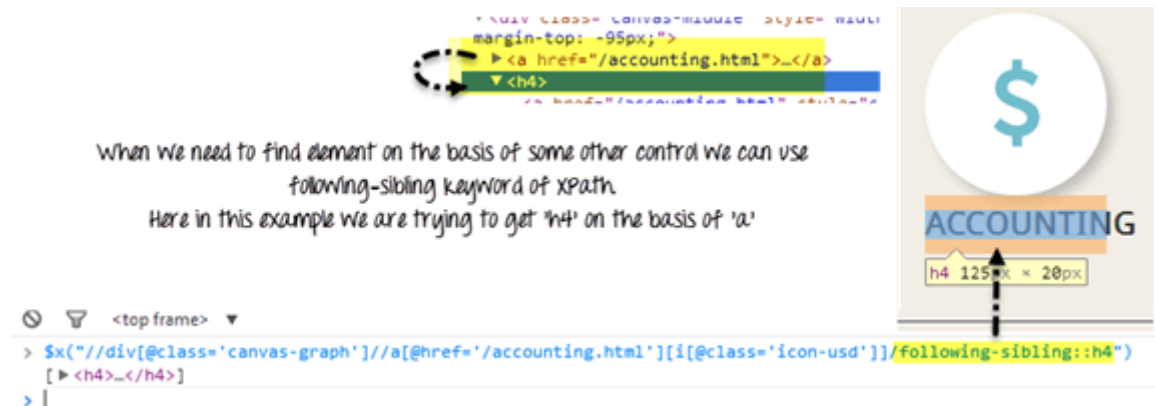
- 1) Introduction
- 2) Install IDE & Fir
- 3) Introduction ID
- 4) First Script
- 5) Locators
- 6) Enhancements
- 7) Intro WebDrive



Sibling: Using sibling keyword, we can fetch a web element on the which is related to some other element.

Example: Here on the basis of sibling element of 'a' we are finding 'h4'

```
"/div[@class='canvas-graph']//a[@href='/accounting.html']//i[@class='icon-usd']//following-sibling::h4"
```



Ancestor: To find an element on the basis of the parent element we can use ancestor attribute of XPath.

- 8) Install Webdriver
- 9) First WebDriver
- 10) Forms & Web
- 11) Links & Tables
- 12) Keyboard Mo
- 13) Selenium & Te
- 14) Selenium Grid
- 15) Parameterizat
- 16) Cross Browser
- 17) All About Exce
- 18) Creating Keyw
- Frameworks
- 19) Page Object M
- Factory
- 20) PDF, Emails ar
- Test Reports
- 21) Using Contain
- to Find Element
- 22) Core Extensio
- 23) Sessions, Para
- Dependency
- 24) Handling Date
- 25) Using Apache /



Lets understand these 3 functions using an example –

Test Steps

1. Go to <http://guru99.com>
2. In the section 'A few of our most popular courses', search all Web Elements which are sibling of a WebElement whose text is 'SELENIUM'
3. We will find element using contains , ancestor and sibling function



USING Contains and Sibling

```

import java.util.List;

import java.util.concurrent.TimeUnit;
  
```

26) Tutorial on Log with Selenium

27) Maven & Jenkins Complete Tutorial

28) Selenium with & PhantomJS

29) Database Test Step by Step Guide

30) Using Robot Framework

31) Handling Iframes

32) Test Case Prioritization

33) Using Selenium WebDriver

34) Implicit & Explicit Selenium

34) How to use Await Selenium

35) TestNG: Execution suites

36) Desired Capabilities

37) Handling Cookies with WebDriver

38) Alert & Popups in Selenium

```

import org.openqa.selenium.By;

import org.openqa.selenium.Keys;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.testng.annotations.Test;

public class SiblingAndParentInXpath {

    @Test

    public void testSiblingAndParentInXpath(){

        WebDriver driver = new FirefoxDriver();        driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

        driver.get("http://guru99.com/");

        //Search element inside 'Popular course' which are sibling of control 'SELENIUM' ,Here first we will find a
        h2 whose text is 'A few of our most popular courses' ,then we move to its parent element which is a 'div' , inside
        this div we will find a link whose text is 'SELENIUM' then at last we will find all of the sibling elements of this
        link('SELENIUM')

        List<WebElement> dateBox = driver.findElements(By.xpath("//h2[contains(text(),'A few of our most popular co
        urses')]/parent::div//div[//a[text()='SELENIUM']]/following-sibling::div[@class='rt-grid-2 rt-omega']"));

        //Print all the which are sibling of the the element named as 'SELENIUM' in 'Popular course'

        for (WebElement webElement : dateBox) {

```

39) SSL Certificate
Selenium

40) XPath in Selen
Guide

42) Handling Ajax
Webdriver

43) Listeners and
WebDriver

49) Using Seleniur

44) Firefox Profile
WebDriver

50) How to use int
Webdriver

45) Breakpoints at
Selenium

46) Execute JavaSc
using Selenium W

47) Using SoapUI

48) XSLT Report in

51) Selenium Inte
Answers

52) Flash Testing v

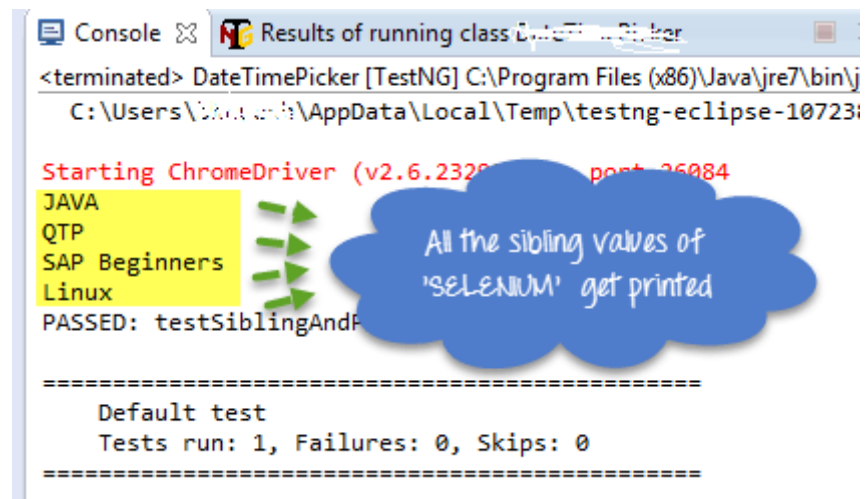
```

        System.out.println(webElement.getText());
    }

    driver.quit();
}
}

```

Output will be like:



Using ancestor function

We can achieve the same functionality with the help of a function 'ancestor' as well.

Now suppose we need to Search All elements in 'Popular course' section with the help of ancestor of the anchor whose text is 'SELENIUM'

Here our xpath query will be like

```
"//div[./a[text()='SELENIUM']]/ancestor::div[@class='rt-grid-2 rt-omega']/following-sibling::div"
```

Complete Code

```
import java.util.List;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;

import org.openqa.selenium.Keys;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.chrome.ChromeDriver;

import org.testng.annotations.Test;

public class AncestorInXPath{

    @Test

    public void testAncestorInXPath(){

        WebDriver driver = new FirefoxDriver();                driver.manage().timeouts().implicitlyWait(10, TimeU
nit.SECONDS);

        driver.get("http://guru99.com/");

        //Search All elements in 'Popular course' section with the help of ancestor of the anchor whose text is 'SE
LENIUM'
```

```

        List<WebElement> dateBox = driver.findElements(By.xpath("//div[.//a[text()='SELENIUM']]/ancestor::div[@class='rt-grid-2 rt-omega']/following-sibling::div"));

        //Print all the which are sibling of the element named as 'SELENIUM' in 'Popular course'

        for (WebElement webElement : dateBox) {

            System.out.println(webElement.getText());

        }

        driver.quit();

    }

}


```

Output will look like-

```

Starting ChromeDriver (v2.6.232923) on port 4712
JAVA
QTP
SAP Beginners
Linux
PASSED: testAncestorInXpath
=====
Default test
Tests run: 1, Failures: 0, Skips:
=====

```



All elements sibling to 'SELENIUM' found using ancestor function

Summary:

- There are some situation when regular xpath cannot be used to find element. In these situation we need different functions from xpath query.
- There some important xpath functions like contains, parent, ancestors, following-sibling etc.
- With the help of these functions we can create complex xpath expressions.

[< Prev](#)

[Next >](#)

RELATED ARTICLES

TEST MANAGEMENT



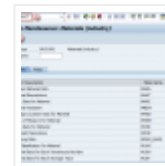
**Project Team:
Develop, Building &
Manage: A Step by
Step Process**

SOFTWARE TESTING



**What is Test
Maturity Model
(TMM)?**

SAP - MM



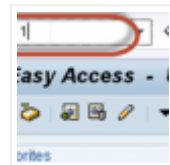
**MM17: Mass
Maintenance of
Material Master in
SAP**

PHP



PHP Date Function

SAP - BASIS



**How to Limit Logon
Attempts in SAP**

SELENIUM



**Using Apache Ant
with Selenium**