# What is Cross browser testing?

Cross browser, testing refers to testing the application in multiple browsers like IE, Chrome, Firefox so that we can test our application effectively.[IE](http://learn-automation.com/challenges-with-ie-browser-in-selenium-webdriver/), [Chrome](http://learn-automation.com/launch-chrome-browser-using-selenium-webdriver/), [Firefox](http://learn-automation.com/use-firefox-selenium-using-geckodriver-selenium-3/) so that we can test our application effectively.

Cross browser, testing is a very important concept in Automation because here the actual automation comes into the picture.

Example- Suppose if you have 20 test cases that you have to execute manually, so it is not a big deal right we can execute in 1 day or 2 days. However, if the same test cases you have to execute in five browsers it means 100 test cases then probably you will take one week or more than one week to do the same and it will be quite boring as well.

If you automate these 20 test cases and run them then it will not take more than one or two hour depends on your test case complexity.

## What is the need of Cross Browser Testing using Selenium Webdriver

For the better experience, we need to do cross browser testing so that customer will get the same UI of application even if he use different or any browser.

Let me list down a few reasons why we should perform cross browser testing

1- Browser compatibility with different OS.

2- Image orientation

3- Each browser has the different orientation of Javascript which can cause issue sometimes.

4- Font size mismatch or not rendered properly.

5- Compatibility with the new web framework.

## Cross Browser Testing using Selenium Webdriver

To achieve this we will use TestNG parameter feature, we will pass the parameter from TestNG.xml file, and based on our parameter Selenium will initiate our browsers.

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.openqa.selenium.ie.InternetExplorerDriver;

import org.testng.annotations.Parameters;

import org.testng.annotations.Test;

public class TestCase1 {

@Test

// Here this parameters we will take from testng.xml

@Parameters("Browser")

public void test1(String browser) {

if(browser.equalsIgnoreCase("FF")){

WebDriver driver=new FirefoxDriver();

driver.manage().window().maximize();

driver.get("http://www.facebook.com");

driver.quit();

}

else if(browser.equalsIgnoreCase("IE")){

System.setProperty("webdriver.ie.driver", "./server/IEDriverServer.exe");//place where you put the

IEDriver EXE

WebDriver driver=new InternetExplorerDriver();

driver.manage().window().maximize();

driver.get("http://www.facebook.com");

driver.quit();

}

}

}

Step 2- Create testng.xml and specify

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE suite SYSTEM "http://testng.org/testng-1.0.dtd">

Here parallel is an attribute which specify the mode of execution and thread-count specify how many browser should open

<suite name="Suite" parallel="tests" thread-count="2">

<test name="Test">

<parameter name="Browser" value="FF" />

<classes>

<class name="SampleTestcases.TestCase1"/>

</classes>

</test>

<test name="Test1">

<parameter name="Browser" value="IE" />

<classes>

<class name="SampleTestcases.TestCase1"/>

</classes>

</test>

</suite>

Run it Like this way:--

