248. What is Cross browser Testing on Cloud? BrowserStack Support to run tests

Cross Browser testing on cloud using Browser Stack

**Steps to Execute**

Create Browser stack profile

Create Maven TestNg project with sample test

Define .yml file which has browser/OS details to run

Add SDK Dependency

Set Capabilites

Run tests with SDK Jar argument

what does Selenium grid does?

It is like a distributed testing where let's say you have five tests, So for five test cases you create one hub and five different nodes, So if you want to run all tests in parallel,

then you assign it to the Selenium hub and hub will distribute the tests into the different node missions, That's how you able to execute your test in grid format.

So that means you can have multiple physical missions attached to your grid and you can distribute your test. That is one way of doing it to make your execution faster.

But there is another thing called cross browser testing.

So you want to make sure your test is working in different browsers and different operating systems. So that means cross browser and cross operating systems, same test, one single test, you are making sure that it works in different browsers.

Client req : 1 test – safari 4.2 MAC OS BIGSUR

1 test – chrome 103 windows 7

So no matter what operating systems or what browser you have, so there are some vendors online like Browser Stack and Sauce Labs is one of the vendor, Lambda Test, so there are different vendors available. So what they do is, hey, we run your Selenium test on cloud.

Cloud means we take care and we run on our servers. So just tell us in which browser you want to run, which version you want to run, and what operating system you want to run.

So these guys maintain all different combination of infrastructure in their servers

Interview que:  do you run Selenium tests on cloud?

Yes, we need to have different browser combinations which we don't have in our company.

So we rely on some third party vendors by paying some minimum amount in a month.

We get anonymous number of combinations where I can run my test.

Running your test on different browsers, operating system we say ask cross, cross browser testing on cloud servers, based upon the vendors. It could be Browser Stack or any other.

Google – browserstack – use free trail – change – live – selenium testing select –

In eclipse create one java project ( CrossBrowserTest ) - after that convert into maven project.

Create one package under src ( rahulshettyacademy ) and in that create one class ( TestDemo)

Add selenium java & TestNg dependencies in the project

Our goal here is just to show you how to run test on their servers, on whatever browser or operating system we ask.

if you remember my Selenium grid, you cannot directly use web driver, equal driver, new Chrome driver because now you are running this in the cloud,

When you are running on the remote machines, cloud means nothing but remote,

somebody in some system, So when you are running in remote missions,

we have to choose new remote web driver.

Remote web driver take 2 arguments –

first argument is where you are sending your test cases. You need to tell where you are redirecting your tests.

And next is the capabilities. These capabilities hold which browser you want to execute,

which platform you want to execute, all the details.

You want to create one capability object and then you need to set it here.

Create one file ( Browserstack.yml ) in the project - .yml is we put all the details here like browser name, operating system.

249. End to end Test execution on Cloud with BrowserStack (Browser/OS Combination)

Add dependencies com.browserstack it is present in their git repo – overview – testNg

so we are dealing with TestNG, So to run this test, let's have a TestNG XML file

which invokes this test. So to configure TestNG, simply right-click on Project, TestNG,

and Convert to TestNG. So you need to have TestNG plugin installed first

for your Eclipse to see that option.

To run the testing xml file first we want few plugins to add in pom.xml that pugins are in borwserstack office documentation.

Add that plugins change the suite file name testng.xml that it.

**package** rahulshettyacademy;

**import** java.net.MalformedURLException;

**import** java.net.URL;

**import** org.openqa.selenium.MutableCapabilities;

**import** org.openqa.selenium.WebDriver;

**import** org.openqa.selenium.remote.RemoteWebDriver;

**import** org.testng.Assert;

**import** org.testng.annotations.Test;

**public** **class** TestDemo {

@Test

**public** **void** titleCheck() **throws** MalformedURLException

{

//WebDriver driver = new RemoteWebDriver(new URL("http://192.168.1.139:4444"), caps);

MutableCapabilities caps = **new** MutableCapabilities();

WebDriver driver = **new** RemoteWebDriver(**new** URL("https://hub.browserstack.com/wd/hub"),caps);

driver.get("https://rahulshettyacademy.com");

Assert.*assertTrue*(driver.getTitle().matches("Rahul Shetty Academy"));

}

}