

Browser Stack Integration

Step 1: Create a Free trial account

1. Go to BrowserStack website
2. Click **“Get Started Free”** or **“Sign Up”**
3. Sign up using:
 - Email
 - Google account
 - GitHub account

Verify your email (if asked), Free account is created.

Step 2: Log into BrowserStack Dashboard

1. Once logged in, you will be taken to the main dashboard.

Step 3: Download Sample project :

1. From the left sidebar → Click **Automate**
2. Go to **“Getting Started”**
3. Download zip file
4. Unzip it.

Step 4: Setup Eclipse project

1. Create a maven project
2. Install testNG plugin
3. From Sample Project shared in GDrive, Copy java files and pom.xml and testNG.xml to project
4. Run test.java
5. Run Login_Sauce_Demo_TestNG.java
6. Install BrowserStack Plugin.

Step 5: Configure project for executing tests on browser Stack

1. Create username password and URL as public variables in class:

```
public static final String USERNAME = "anjalikulkarni_D7CEPh";  
public static final String ACCESS_KEY = "bFr36gwqXFQrhQ391HT4";  
public static final String BROWSERSTACK_URL = "https://" + USERNAME + ":" + ACCESS_KEY +  
"@hub-cloud.browserstack.com/wd/hub";
```

2. Declare parameters for the test:

```
@Parameters({"os", "osVersion", "browser", "browserVersion"})
```

3. Set Capabilities in BeforeMethod:

```
DesiredCapabilities caps = new DesiredCapabilities();  
HashMap<String, Object> bstackOptions = new HashMap<>();  
bstackOptions.put("os", os);  
bstackOptions.put("osVersion", osVersion);  
bstackOptions.put("projectName", "My TestNG Project");  
bstackOptions.put("buildName", "TestNG Build 1.0");  
bstackOptions.put("sessionName", "My Test Case");  
  
// attach BrowserStack options  
caps.setCapability("bstack:options", bstackOptions);
```

4. Use a Remote Web Driver instead of regular chrome driver:

```
driver = new RemoteWebDriver(new URL(BROWSERSTACK_URL), caps);
```

5. Create a TestNG.xml file for running tests and setting parameters:

```
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd" >
<suite name="BrowserStack Suite">

    <test name="Windows Chrome Test">
        <parameter name="os" value="Windows"/>
        <parameter name="osVersion" value="10"/>
        <parameter name="browser" value="Chrome"/>
        <parameter name="browserVersion" value="120"/>
        <classes>
            <class name="ccstDemo.Login_SauceDemo_TestNG"/>
        </classes>
    </test>

    <test name="Mac Safari Test">
        <parameter name="os" value="OS X"/>
        <parameter name="osVersion" value="Monterey"/>
        <parameter name="browser" value="Safari"/>
        <parameter name="browserVersion" value="15.6"/>
        <classes>
            <class name="ccstDemo.Login_SauceDemo_TestNG"/>
        </classes>
    </test>

</suite>
```

6. Run tests see results in Browser Stack

7. Add Function to set test results in Browser Stack

```
public void markTestStatus(String status, String reason, WebDriver driver)
{
    JavascriptExecutor jse = (JavascriptExecutor) driver;
    jse.executeScript("browserstack_executor: {"action\": \"setSessionStatus\", \"arguments\": {\"status\": \""
        + status + "\", \"reason\": \"" + reason + "\"}}");
}
```

8. Call this function in try and catch blocks of test case:

```
markTestStatus("passed", "User successfully logged in.", driver);
```

Step 5: Observe results in Browser Stack.

- Automate > Overview > All Builds
- Build > Insights
- Build > Tests
- Test > Debug > Execution Video
- Select Build from side bar > Observe various environments