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Module Name: Latest Industry Trends

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Assignment No. 2

File name: BrowserStack.java

```
package cloudTesting;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.remote.DesiredCapabilities;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.WebDriverWait;
import org.testng.Assert;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.Parameters;
import org.testng.annotations.Test;

import java.net.MalformedURLException;
import java.net.URL;
import java.time.Duration;
import java.util.HashMap;
import org.openqa.selenium.remote.RemoteWebDriver;

public class BrowserStack {

    WebDriver driver;

    public static final String USERNAME = "piyushkasture_bWr9G1";
    public static final String ACCESS_KEY = "TyeP4XA7cCsTzEQ2C2gq";
```

```
public static final String BROWSERSTACK_URL = "https://" + USERNAME + ":" + ACCESS_KEY +  
"@hub-cloud.browserstack.com/wd/hub";  
  
WebDriverWait wait;  
  
public void markTestStatus(String status, String reason, WebDriver driver) {  
    JavascriptExecutor jse = (JavascriptExecutor) driver;  
    jse.executeScript("browserstack_executor: {"action": "setSessionStatus", "arguments":  
{"status": ""}  
+ status + "\", \"reason\": \"" + reason + "\"}}");  
}  
  
@Parameters({"os", "osVersion", "browserName", "browserVersion"})  
@BeforeMethod  
public void setUp(String os, String osVersion, String browserName, String browserVersion) throws  
MalformedURLException {  
    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");  
  
    caps.setCapability("bstack:options", bstackOptions);  
    caps.setCapability("browserName", browserName);  
    caps.setCapability("browserVersion", browserVersion);  
  
    driver = new RemoteWebDriver(new URL(BROWSERSTACK_URL), caps);  
  
    wait = new WebDriverWait(driver, Duration.ofSeconds(10));  
    driver.manage().window().maximize();
```

```

}

@Test(priority = 1)
public void testproductLoginSauceDemo() {
    driver.get("https://www.saucedemo.com");
    try {
        WebElement username =
wait.until(ExpectedConditions.visibilityOfElementLocated(By.id("user-name")));
        WebElement password = driver.findElement(By.id("password"));
        WebElement loginButton = driver.findElement(By.id("login-button"));

        username.sendKeys("standard_user");
        password.sendKeys("secret_sauce");
        loginButton.click();

        driver.findElement(By.xpath("//div[normalize-space()='Sauce Labs Backpack']")).click();
        driver.findElement(By.xpath("//button[@id='add-to-cart']")).click();
        driver.findElement(By.xpath("//button[@id='back-to-products']")).click();
        driver.findElement(By.xpath("//a[@class='shopping_cart_link']")).click();

        WebElement removeButton =
wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath("//button[@id='remove-sauce-labs-backpack']")));
        Assert.assertTrue(removeButton.isDisplayed(), "Remove button not visible, login/cart flow failed.");
    }

    markTestStatus("passed", "Item successfully added to cart.", driver);

    System.out.println("Item successfully added to cart");
} catch (Exception e) {
    markTestStatus("failed", "Item not added in cart: " + e.getMessage(), driver);
}

```

```

        Assert.fail("Test failed: " + e.getMessage());
    }
}

@AfterMethod
public void tearDown() {
    if (driver != null) {
        driver.quit();
    }
}

```

XML File name: BrowserStack.xml

```

<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd" >
<suite name="BrowserStack Suite">
    <test name="Simple TestNG Tests">
        <parameter name="os" value="Windows"></parameter>
        <parameter name="osVersion" value="10"></parameter>
        <parameter name="browserName" value="Chrome"></parameter>
        <parameter name="browserVersion" value="120"></parameter>
        <classes>
            <class name="cloudTesting.BrowserStack"/>
        </classes>
    </test>
</suite>

```

Output:

```
Console X
<terminated> BrowserStack_BrowserStack.xml [TestNG] C:\Users\Piyush Kasture\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_23
[RemoteTestNG] detected TestNG version 7.9.0
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
Nov 30, 2025 7:29:40 PM org.openqa.selenium.remote.tracing.opentelemetry.OpenTelemetryTracer createTracer
INFO: Using OpenTelemetry for tracing
Item successfully added to cart

=====
BrowserStack Suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
=====
```

Results of running suite X

Search: Passed: 1 Failed: 0 Skipped: 0 sts: 1/1 Methods: 1 (24938 ms)

All Tests Failed Tests Summary

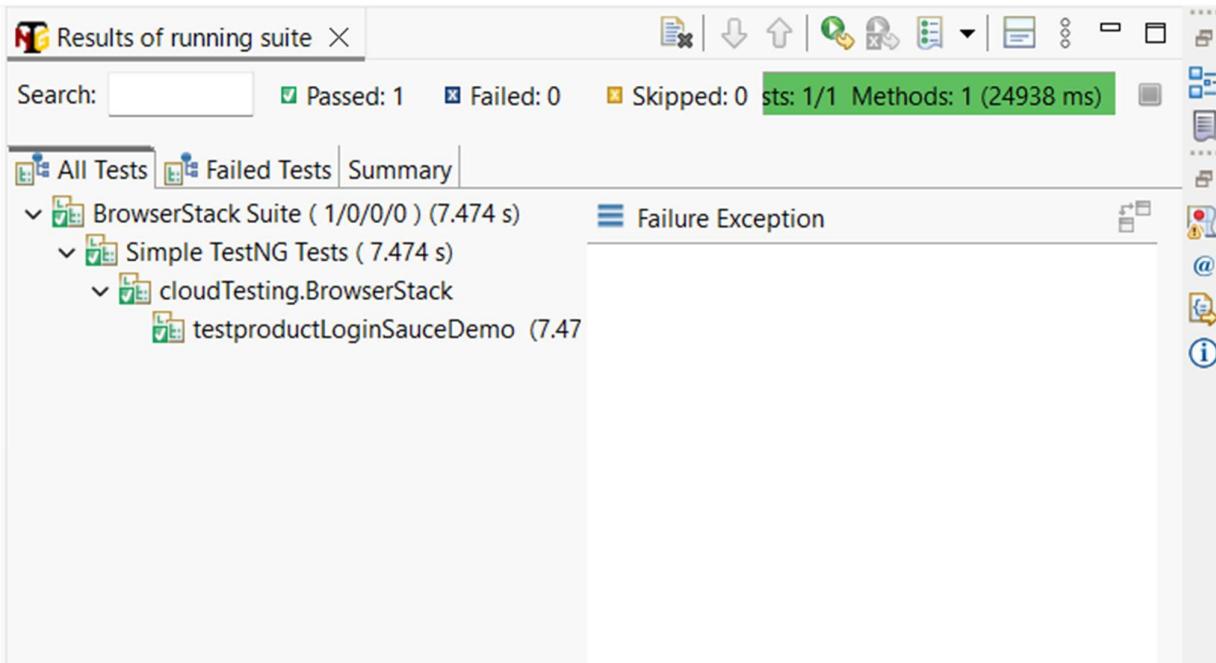
BrowserStack Suite (1/0/0/0) (7.474 s)

Simple TestNG Tests (7.474 s)

cloudTesting.BrowserStack

testproductLoginSauceDemo (7.47

Failure Exception



BrowserStack Output:

The screenshot shows the BrowserStack Automate dashboard. On the left, a sidebar menu includes options like Overview, Dashboards, Reports, Projects (selected), Build Runs, Tests Health, Unique Errors, Testing Trends, Settings, Integrations, and View Documentation. A prominent message in the center says "You're missing out on key features you've already paid for" with a call to action to "Explore SDK benefits" or "Integrate now". The main area displays a "TestNG Build 1.0 #14" summary. It shows a status bar with "Passed" (green), "QG Pending" (blue), "Piyush Kasture" (user icon), "20s" (duration), "Automate" (browser icon), "7 mins ago" (run time), and "View metadata". Below this, tabs for Insights, Tests (selected), and Accessibility are visible. A search bar allows searching by test name, file path, error or BrowserStack ID. The "Tests" section lists a single test case: "Verify Logging-Browserstack Logo" with a status of "Always Failing". At the bottom, browser compatibility information (Chrome 120.0, Win 10, etc.) and a duration of 20s are shown.

