



Code Snippet for assertEquals() in Selenium

```
package com.tests;
import org.junit.Assert;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.Test;
public class BrowserStackTutorials {
    @Test
    public void testAssertFunctions() {
        System.setProperty("webdriver.chrome.driver",
            "C:\\I2EWebsiteTest\\Driver\\chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.navigate().to("https://www.browserstack.com/");
        String ActualTitle = driver.getTitle();
        String ExpectedTitle = "Most Reliable App & Cross Browser Testing Platform |
        BrowserStack";
        Assert.assertEquals(ExpectedTitle, ActualTitle);
    }
}
```

```
BrowserStackTutorials.java
1 package com.tests;
2 import org.junit.Assert;
3 import org.openqa.selenium.WebDriver;
4 import org.openqa.selenium.chrome.ChromeDriver;
5 import org.testng.annotations.Test;
6 public class BrowserStackTutorials {
7
8     // Author: Chaitanya Didiari
9     @Test
10     public void testAssertFunctions() {
11         System.setProperty("webdriver.chrome.driver", "C:\\\\12\\WebsiteTest\\Driver\\chromedriver.exe");
12         WebDriver driver = new ChromeDriver();
13         driver.navigate().to("https://www.browserstack.com/");
14         String ActualTitle = driver.getTitle();
15         String ExpectedTitle = "Most Reliable App & Cross Browser Testing Platform | browserstack";
16         Assert.assertNotEquals(ActualTitle, ExpectedTitle);
17     }
18 }
19
```

Results of running class BrowserStackTutorials

Search: Passed: 1 Failed: 0 Skipped: 0 Tests: 1/1 Methods: 1 (9233 ms)

All Tests Failed Tests Summary

- Default suite (1/0/0) (9.12 s)
 - Default test (9.12 s)
 - com.tests.BrowserStackTutorials
 - testAssertFunctions (9.12 s)

Failure Exception

Console Team Explorer

terminated> BrowserStackTutorials [TestNG] C:\Program Files\Java\jdk1.8.0_161\bin\java.exe (Mar 4, 2020, 11:29:36 AM)

PASSED: testAssertFunctions

Default test
Tests run: 1, Failures: 0, Skips: 0

Default suite
Total tests run: 1, Failures: 0, Skips: 0

```
BrowserStackTutorials.java
1 package com.tests;
2 import static org.testng.Assert.assertTrue;
3 import org.openqa.selenium.WebDriver;
4 import org.openqa.selenium.chrome.ChromeDriver;
5 import org.testng.annotations.Test;
6 public class BrowserStackTutorials {
7
8     // Author: Chaitanya Didiari
9     @Test
10     public void testAssertFunctions() {
11         System.setProperty("webdriver.chrome.driver", "C:\\\\12\\WebsiteTest\\Driver\\chromedriver.exe");
12         WebDriver driver = new ChromeDriver();
13         driver.navigate().to("https://www.browserstack.com/");
14         Boolean verifyTitle = driver.getTitle().equalsIgnoreCase("Most Reliable App & Cross Browser Testing Platform | BrowserStack");
15         assertTrue(verifyTitle);
16     }
17 }
18 }
19
```

Results of running class BrowserStackTutorials

Search: Passed: 1 Failed: 0 Skipped: 0 Tests: 1/1 Methods: 1 (9209 ms)

All Tests Failed Tests Summary

- Default suite (1/0/0) (9.095 s)
 - Default test (9.095 s)
 - com.tests.BrowserStackTutorials
 - testAssertFunctions (9.095 s)

Failure Exception

Console Team Explorer

terminated> BrowserStackTutorials [TestNG] C:\Program Files\Java\jdk1.8.0_161\bin\java.exe (Mar 4, 2020, 11:33:36 AM)

PASSED: testAssertFunctions

Default test
Tests run: 1, Failures: 0, Skips: 0

Default suite
Total tests run: 1, Failures: 0, Skips: 0

```
BrowserStackTutorials.java
1 import static org.testng.Assert.assertFalse;
2 import org.openqa.selenium.WebDriver;
3 import org.openqa.selenium.chrome.ChromeDriver;
4 import org.testng.annotations.Test;
5
6 public class BrowserStackTutorials {
7     // Author: Chaitanya Bujari
8     @Test
9     public void testAssertFunctions() {
10         System.setProperty("webdriver.chrome.driver", "C:\\\\I20WebsiteTest\\Driver\\chromedriver.exe");
11         WebDriver driver = new ChromeDriver();
12         driver.navigate().to("https://www.browserstack.com/");
13         Boolean verifyTitle = driver.getTitle()
14             .equalsIgnoreCase("Most Reliable App & Cross Browser Testing Platform");
15         assertFalse(verifyTitle);
16     }
17 }
18
19
20
Results of running class BrowserStackTutorials
Search:
Passed: 1 Failed: 0 Skipped: 0 Tests: 1/1 Methods: 1 (16994 ms)
All Tests Failed Tests Summary
Default suite ( 1/0/0 ) (16.805 s)
Default test ( 16.805 s)
com.tests.BrowserStackTutorials
testAssertFunctions (16.805 s)
Failure Exception
Console Team Explorer
-terminated- BrowserStackTutorials [TestNG] C:\Program Files\Java\jdk1.8.0_161\bin\java.exe (Mar 4, 2020, 11:45:05 AM)
PASSED: testAssertFunctions
Default test
Tests run: 1, Failures: 0, Skips: 0
Default suite
Total tests run: 1, Failures: 0, Skips: 0
```

```
BrowserStackTutorials.java
1 package com.tests;
2 import static org.testng.Assert.assertNotNull;
3 import org.openqa.selenium.WebDriver;
4 import org.openqa.selenium.chrome.ChromeDriver;
5 import org.testng.annotations.Test;
6
7 public class BrowserStackTutorials {
8     // Author: Chaitanya Bujari
9     @Test
10     public void testAssertFunctions() {
11         System.setProperty("webdriver.chrome.driver", "C:\\\\I20WebsiteTest\\Driver\\chromedriver.exe");
12         WebDriver driver = new ChromeDriver();
13         driver.navigate().to("https://www.browserstack.com/");
14         Boolean verifyTitle = driver.getTitle()
15             .equalsIgnoreCase("Most Reliable App & Cross Browser Testing Platform");
16         assertNotNull(verifyTitle);
17     }
18 }
19
20
Results of running class BrowserStackTutorials
Search:
Passed: 1 Failed: 0 Skipped: 0 Tests: 1/1 Methods: 1 (8472 ms)
All Tests Failed Tests Summary
Default suite ( 1/0/0 ) (8.352 s)
Default test ( 8.352 s)
com.tests.BrowserStackTutorials
testAssertFunctions (8.352 s)
Failure Exception
Console Team Explorer
-terminated- BrowserStackTutorials [TestNG] C:\Program Files\Java\jdk1.8.0_161\bin\java.exe (Mar 4, 2020, 11:49:59 AM)
PASSED: testAssertFunctions
Default test
Tests run: 1, Failures: 0, Skips: 0
Default suite
Total tests run: 1, Failures: 0, Skips: 0
```

Example of Hard Assert in Selenium

```
package com.tests;
import static org.testng.Assert.assertEquals;
import static org.testng.Assert.assertFalse;
import static org.testng.Assert.assertNotEquals;
import static org.testng.Assert.assertNotNull;
import static org.testng.Assert.assertNull;
import static org.testng.Assert.assertTrue;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.Test;

public class BrowserStackTutorials {
    @Test
    public void testAssertFunctions() {
        System.setProperty("webdriver.chrome.driver",
            "C:\\I2E\\WebsiteTest\\Driver\\chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.navigate().to("https://www.browserstack.com/");
        String ActualTitle = driver.getTitle();
        String verifyAssertNull=null;
        String ExpectedTitle = "Most Reliable App & Cross Browser Testing Platform | BrowserStack";
        Boolean verifyTitleIsPresent=driver.getTitle().equalsIgnoreCase("Most Reliable App & Cross Browser Testing Platform | BrowserStack");
        Boolean verifyTitleIsChanged=driver.getTitle().equalsIgnoreCase("Testing Platform | BrowserStack");
        assertEquals(ExpectedTitle, ActualTitle);
        assertNotEquals(ExpectedTitle, "browserstack");
        assertTrue(verifyTitleIsPresent);
        assertFalse(verifyTitleIsChanged);
        assertNotNull(verifyTitleIsPresent);
        assertNull(verifyAssertNull);
    }
}
```

```

1 package com.tests;
2
3 •import org.openqa.selenium.WebDriver;
4 import org.openqa.selenium.chrome.ChromeDriver;
5 import org.testng.Assert;
6 import org.testng.annotations.Test;
7 import org.testng.asserts.SoftAssert;
8
9 public class BrowserStackTutorials {
10
11     // Author: Chaitanya Puari
12
13     • @Test
14     public void softAssert() {
15         System.setProperty("webdriver.chrome.driver", "C:\\I2EWebsiteTest\\Driver\\chromedriver.exe");
16         WebDriver driver = new ChromeDriver();
17         SoftAssert softAssert = new SoftAssert();
18         driver.navigate().to("https://www.browserstack.com/");
19         String getActualTitle = driver.getTitle();
20         Boolean verifyTitle = driver.getTitle()
21             .equalsIgnoreCase("Most Reliable App & Cross Browser Testing Platform | BrowserStack");
22         softAssert.assertEquals(getActualTitle, "Most Reliable App & Cross Browser Testing Platform | BrowserStack");
23         softAssert.assertNotEquals(getActualTitle, "Most Reliable App & Cross Browser Testing Platform | BrowserStack");
24         softAssert.assertNull(verifyTitle);
25         softAssert.assertNotNull(verifyTitle);
26         softAssert.assertTrue("BrowserStack".equals("Browserstack"), "First soft assert failed");
27         softAssert.assertFalse("BrowserStack".equals("BrowserStack"), "Second soft assert failed");
28         softAssert.assertAll();
29     }
30 }
31
32 }

```

Example of Soft Assert in Selenium (or Verify in Selenium)

```

package com.tests;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.Test;
import org.testng.asserts.SoftAssert;
public class BrowserStackTutorials {
    @Test
    public void softAssert() {
        System.setProperty("webdriver.chrome.driver",
            "C:\\I2EWebsiteTest\\Driver\\chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        SoftAssert softAssert = new SoftAssert();
        driver.navigate().to("https://www.browserstack.com/");
        String getActualTitle = driver.getTitle();
        Boolean verifyTitle = driver.getTitle().equalsIgnoreCase("Most Reliable App & Cross
        Browser Testing Platform | BrowserStack");
        softAssert.assertEquals(getActualTitle, "Most Reliable App & Cross Browser Testing
        Platform | BrowserStack");
        softAssert.assertNotEquals(getActualTitle, "Most Reliable App & Cross Browser Testing
        Platform | BrowserStack");
        softAssert.assertNull(verifyTitle);
        softAssert.assertNotNull(verifyTitle);
        softAssert.assertTrue("BrowserStack".equals("Browserstack"), "First soft assert
        failed");
        softAssert.assertFalse("BrowserStack".equals("BrowserStack"), "Second soft assert
        failed");
        softAssert.assertAll();
    }
}

```


Hard vs Soft Asserts in Selenium

Hard Assertions	Soft Assertions
Test Execution will be aborted if assert condition is not met	Test execution will continue till the end of the test case even if assert condition is not met
Does not have to invoke any methods to capture the assertions	To view assertions result at the end of the test, tester has to invoke <code>assertAll()</code>

Diferencia entre Assert y Verify en selenium

En el caso de las aserciones, si no se cumple la condición de la aserción, se abortará la ejecución del caso de prueba. Las pruebas restantes se omiten y el caso de prueba se marca como fallido. Estas afirmaciones se utilizan como puntos de control para probar o validar transacciones críticas para el negocio.

En caso de verificación, las pruebas continuarán ejecutándose hasta que se ejecute la última prueba, incluso si no se cumplen las condiciones de aserción. Verify o Soft Asserts informará los errores al final de la prueba.

En pocas palabras, las pruebas no se cancelarán si no se cumple alguna condición. Los evaluadores deben invocar el método `assertAll ()` para ver los resultados.

Tanto las afirmaciones hard como las soft son muy importantes para diseñar y ejecutar pruebas de controlador web de Selenium. Son fundamentales para verificar el comportamiento de la aplicación en etapas críticas. Mediante el uso de afirmaciones, los equipos de prueba pueden determinar si una aplicación está funcionando como se espera. También pueden ahorrar a los equipos la molestia de ejecutar pruebas que no es necesario ejecutar si no se cumple una condición.