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Practical no 3

AIM: Write and test a program to login a specific web page using JUnit.

Theory

What is Junit

The JUnit Platform serves as a foundation for launching testing frameworks on the JVM. It also defines the TestEngine API for developing a testing framework that runs on the platform. Furthermore, the platform provides a Console Launcher to launch the platform from the command line and a JUnit 4 based Runner for running any TestEngine on the platform in a JUnit 4 based environment. First-class support for the JUnit Platform also exists in popular IDEs like eclipse.

Annotations Used in Junit

<u>@Test</u> Denotes that a method is a test method. Unlike JUnit 4's @Test annotation, this annotation does not declare any attributes, since test extensions in JUnit Jupiter operate based on their own dedicated annotations. Such methods are inherited unless they are overridden.

@BeforeAll Denotes that the annotated method should be executed before all @Test, @RepeatedTest, @ParameterizedTest, and @TestFactory methods in the current class; analogous to JUnit 4's @BeforeClass.

<u>@AfterAll</u> Denotes that the annotated method should be executed after all @Test, @RepeatedTest, @ParameterizedTest, and @TestFactory methods in the current

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class; analogous to JUnit 4's @AfterClass.

@BeforeEach Denotes that the annotated method should be executed before each @Test, @RepeatedTest, @ParameterizedTest, or @TestFactory method in the current class; analogous to JUnit 4's @Before. Such methods are inherited unless they are overridden.

<u>@AfterEach</u> Denotes that the annotated method should be executed after each @Test, @RepeatedTest, @ParameterizedTest, or @TestFactory method in the current class; analogous to JUnit 4's @After. Such methods are inherited unless they are overridden.

Steps for Testing a site using Junit

- Step-1: Create a new Project and give it a name.
- Step-2 :- After the initialization create a new package inside the project and give it a name.
- Step-3 :- To include the libraries and "jar" files, Unzip the zipped archives,next "right click on the project icon → BuildP ath → Conf igureBuildP ath.."
- Step-4: Here we will choose "Add External JARs..." button and navigate to the ".jar" file we downloaded/extracted and select them to include in our project.
- Step-5: Save the configuration. You have successfully installed selenium for java.
- Step-6: For linking the chrome driver you need to include it in the code by adding a Line System.setProperty("webdriver.chrome.driver","chromedriver path");
- Step-7: Next create a new JUnit Test Case file give it a name.
- Step-8: Import the following libraries

import org.junit.Test;

import org.openqa.selenium.By;

import org.openqa.selenium.chrome.ChromeDriver;

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```
import org.openqa.selenium.WebDriver;
import static org.junit.Assert.*;
import org.junit.Before;
import org.junit.After;
import junit.framework.Assert;
Step-9 :- Add the code.
```

Code:-

```
import static org.junit.Assert.*;
import org.junit.After;
import org.junit.Assert;
import org.junit.Before;
import org.junit.Test;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
public class JunitEx {
      WebDriver driver = null;
      @Before
      public void setup() {
             System.setProperty("webdriver.chrome.driver", "E:\\tycs\\stqa
prac\\prac3\\chromedriver_win32\\chromedriver.exe" );
             driver = new ChromeDriver();
             driver.manage().window().maximize();
```

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```
}
      @Test
      public void test() throws InterruptedException {
             driver.get("http://thedemosite.co.uk/savedata.php");
      driver.findElement(By.xpath("//input[@name='username']")).sendKeys("krunal71");
             Thread.sleep(1000);
             driver.findElement(By.xpath("//input[@name='password']")).sendKeys("kd713");
             Thread.sleep(1000);
             driver.findElement(By.xpath("//input[@name='FormsButton2']")).click();
             Thread.sleep(1000);
             Thread.sleep(2000);
             Assert.assertTrue("invalid credential", driver.getTitle().contains("Add a user -
FREE PHP code and SQL"));
             System.out.println(" page title is verified user is able to login ");
             }
      @Test
      public void demotest() throws InterruptedException {
             driver.get("http://demo.guru99.com/test/newtours/");
      driver.findElement(By.xpath("//input[@name='userName']")).sendKeys("krunal713");
             Thread.sleep(1000);
             driver.findElement(By.xpath("//input[@name='password']")).sendKeys("kd713");
```

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```
Thread.sleep(1000);
    driver.findElement(By.xpath("//input[@name='submit']")).click();
    Thread.sleep(1000);
    Thread.sleep(2000);
    Assert.assertTrue("invalid credential" , driver.getTitle().contains("Welcome: Mercury Tours"));
    System.out.println(" page title is verified user is able to login ");
    }

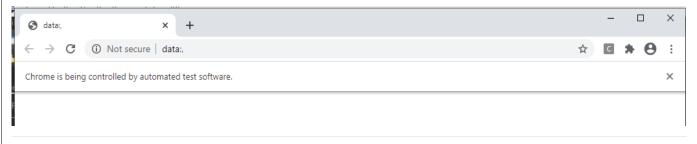
@After
    public void aftertest(){
        driver.quit();
    }
}
```

Output:

```
<terminated> JunitEx [JUnit] C:\Program Files\Java\jdk-14.0.2\bin\javaw.exe (Sep 4, 2020, 1:43:03 PM - 1:43:43 PM)
Starting ChromeDriver 2.41.578737 (49da6702b16031c40d63e5618de03a32ff6c197e) on port 2768
Only local connections are allowed.
[1599207188.998] [WARNING]: Timed out connecting to Chrome, retrying...
Sep 04, 2020 1:43:11 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: 0SS
[1599207193.113] [WARNING]: Timed out connecting to Chrome, retrying...
page title is verified user is able to login
Starting ChromeDriver 2.41.578737 (49da6702b16031c40d63e5618de03a32ff6c197e) on port 23760
Only local connections are allowed.
[1599207205.589] [WARNING]: Timed out connecting to Chrome, retrying...
Sep 04, 2020 1:43:27 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: 0SS
[1599207209.611] [WARNING]: Timed out connecting to Chrome, retrying...
page title is verified user is able to login
```

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Chrome is being controlled by automated test software.

TheDemoSite.co.uk sample code: <u>ASP and MySQL - PHP and MySQL - phpFormMailer - ASP Contact form</u>

PHP and MySQL

Just examples of PHP code, linking to your MySQL database and JavaScript.

1. Home | 2. The Database | 3. Add a User | 4. Login | 5. Get your db online

All code updated April 2014, now uses PHP/PDO for database connectivity

3. Add a User

Below is the current single record within the database:

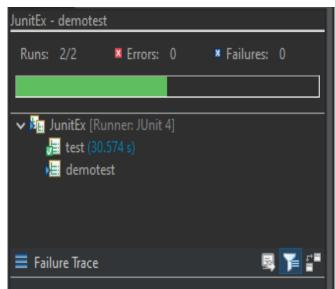
The username: Amey The password: 95943

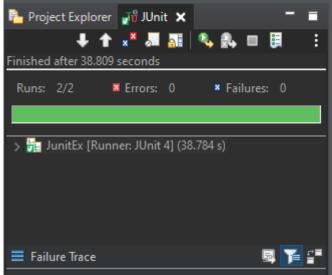
Add your own username and password, enter your details below and click save. **DO NOT** use valid details as the information you enter will be displayed above and the next visitor will be able to view them as you are now.



When you have added your own username and password $\underline{\text{move onto the Login page to}}$ $\underline{\text{test it!}}$

Click here to view the PHP and JavaScript code used for this page, or download the free zip here





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Demo Site

Selenium → Insurance Project Agile Project Bank Project Security

