Handling the Test Data and Executing It in Multiple Environments for Bus Ticket Booking Application.

Description

Create a TestNG framework that helps to test the bus ticket booking application in multiple environments.

Background of the problem statement:

As a part of developing TestNG and POM framework, the admin requires a resource like multiple virtual machines to execute it in different environments.

You must use the following:

- Eclipse IDE
- Java Development Kit (Version 8)
- Selenium standalone server (Version 3.141.59)

Source code:-

Pom.xml:-

```
<!-- pom.xml -->
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/xsd/maven-4.0.0.xsd">
   <modelVersion>4.0.0</modelVersion>
   <groupId>com.redbus</groupId>
   <artifactId>redbus-testing</artifactId>
   <version>1.0-SNAPSHOT</version>

   <dependencies>
      <!-- TestNG -->
    <dependency>
        <groupId>org.testng</groupId>
        <artifactId>testng</artifactId>
        <version>7.4.0</version>
        <scope>test</scope>
    </dependency>

    <!-- Selenium -->
    <dependency>
        <groupId>org.seleniumhq.selenium</groupId>
        <artifactId>selenium-java</artifactId>
        <version>3.141.59</version>
    </dependency>

    <!-- WebDriverManager -->
    <dependency>
```

```
        <groupId>io.github.bonigarcia</groupId>
        <artifactId>webdrivermanager</artifactId>
        <version>4.4.3</version>
    </dependency>
   </dependencies>
</project>
```

TestSuite:-

```
<suite name="RedbusTestSuite">
    <parameter name="environment" value="qa" />
    <test name="RegressionTest">
        <classes>
            <class name="com.RedBuss.test.tests.LoginTest" />
            <!-- Add more test classes as needed -->
        </classes>
    </test>
</suite>
```

Basetest:-

```
package com.RedBus.Test.Base;

import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.Parameters;

import io.github.bonigarcia.wdm.WebDriverManager;

public class BaseTest {
      protected WebDriver driver;

         @BeforeMethod
         @Parameters("environment")
         public void setUp(String environment) {
             System.out.println("Setting up environment: " +
environment);

             // Add logic to configure WebDriver based on the
environment
             if (environment.equalsIgnoreCase("qa")) {
                 WebDriverManager.chromedriver().setup();
                 driver = new ChromeDriver();
             } else if (environment.equalsIgnoreCase("prod")) {
                 WebDriverManager.edgedriver().setup();;
             }

             driver.manage().window().maximize();
         }
```

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

}
```

LoginPage:-

```
package com.RedBuss.test.pages;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;

public class LoginPage {
     private WebDriver driver;

    public LoginPage(WebDriver driver) {
        this.driver = driver;
    }

    public void login(String username, String password) {
        driver.findElement(By.id("username")).sendKeys(username);
        driver.findElement(By.id("password")).sendKeys(password);
        driver.findElement(By.id("loginButton")).click();
    }

}
```

LoginTest:-

```
package com.RedBuss.test.tests;

import org.testng.annotations.Test;

import com.RedBus.Test.Base.BaseTest;
import com.RedBuss.test.pages.LoginPage;


public class LoginTest extends BaseTest {
     @Test

    public void testLogin() {
        driver.get("https://www.redbus.in");

        // Perform login
        LoginPage loginPage = new LoginPage(driver);
        loginPage.login("9793477123", "Gaurav27");
```

```
            // Add assertions or verifications as needed
        }

    }
```