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REG NO: 0724S1088

GROUP 4

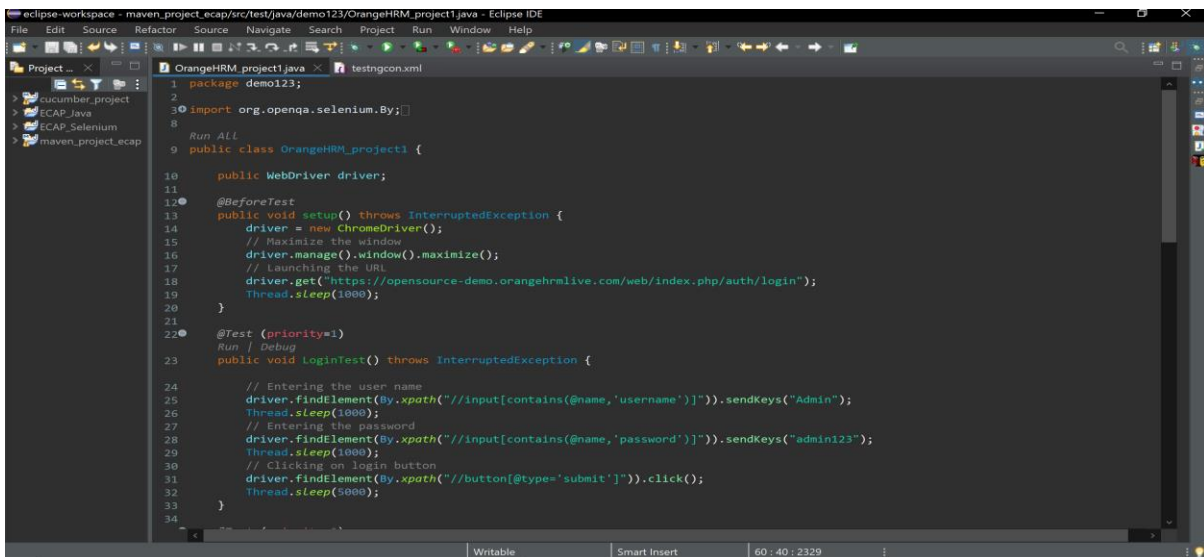
Project-1: OrangeHRM Automation Script using TestNG

Overview:

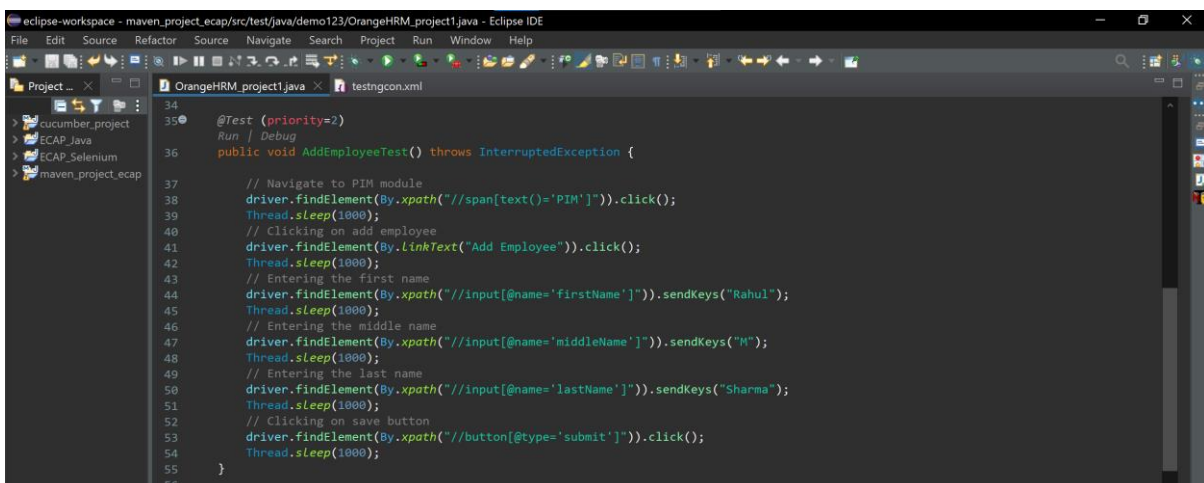
This project automates several features of the OrangeHRM application using Selenium WebDriver with TestNG. It performs login, adds an employee, searches for an employee, and logs out. The testng.xml configuration is used to run the test suite.

Automation Script:

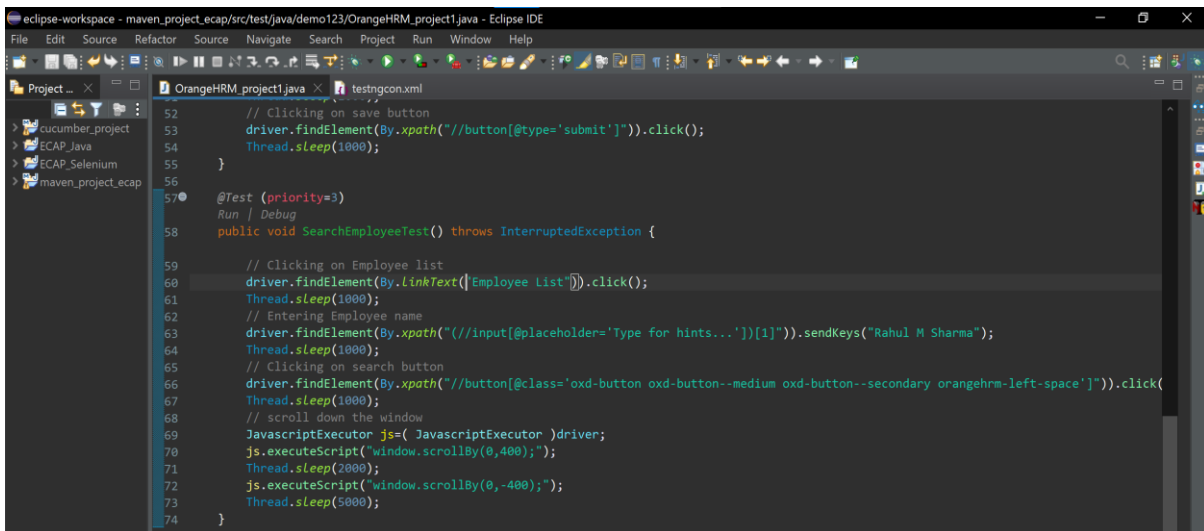
Eclipse IDE code



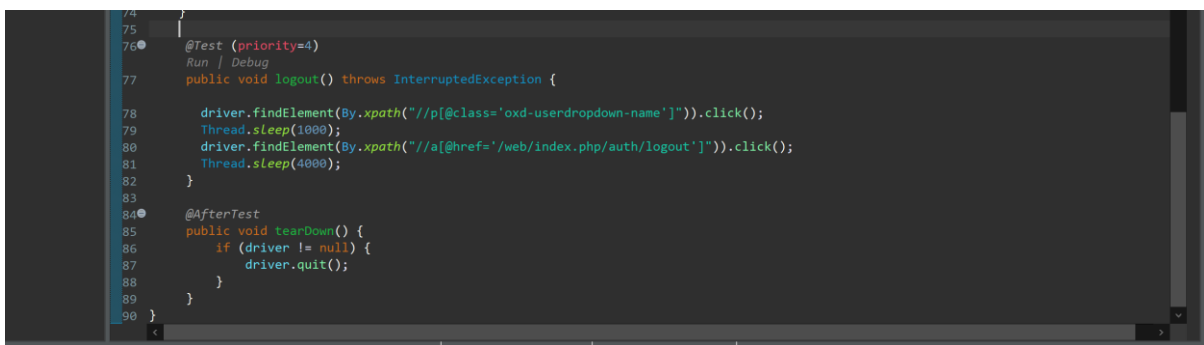
```
1 package demo123;
2
3 import org.openqa.selenium.By;
4
5 Run ALL
6 public class OrangeHRM_project1 {
7
8     public WebDriver driver;
9
10    @BeforeTest
11    public void setup() throws InterruptedException {
12        driver = new ChromeDriver();
13        // Maximize the window
14        driver.manage().window().maximize();
15        // Launching the URL
16        driver.get("https://opensource-demo.orangehrmlive.com/web/index.php/auth/login");
17        Thread.sleep(1000);
18    }
19
20    @Test (priority=1)
21    Run | Debug
22    public void LoginTest() throws InterruptedException {
23
24        // Entering the user name
25        driver.findElement(By.xpath("//input[contains(@name,'username')]")).sendKeys("Admin");
26        Thread.sleep(1000);
27        // Entering the password
28        driver.findElement(By.xpath("//input[contains(@name,'password')]")).sendKeys("admin123");
29        Thread.sleep(1000);
30        // Clicking on login button
31        driver.findElement(By.xpath("//button[@type='submit']")).click();
32        Thread.sleep(5000);
33    }
34}
```



```
34
35 @Test (priority=2)
36 Run | Debug
37 public void AddEmployeeTest() throws InterruptedException {
38
39     // Navigate to PIM module
40     driver.findElement(By.xpath("//span[text()='PIM']")).click();
41     Thread.sleep(1000);
42     // Clicking on add employee
43     driver.findElement(By.linkText("Add Employee")).click();
44     Thread.sleep(1000);
45     // Entering the first name
46     driver.findElement(By.xpath("//input[@name='firstName']")).sendKeys("Rahul");
47     Thread.sleep(1000);
48     // Entering the middle name
49     driver.findElement(By.xpath("//input[@name='middleName']")).sendKeys("M");
50     Thread.sleep(1000);
51     // Entering the last name
52     driver.findElement(By.xpath("//input[@name='lastName']")).sendKeys("Sharma");
53     Thread.sleep(1000);
54     // Clicking on save button
55     driver.findElement(By.xpath("//button[@type='submit']")).click();
56     Thread.sleep(1000);
57 }
```



```
52 // Clicking on save button
53 driver.findElement(By.xpath("//button[@type='submit']")).click();
54 Thread.sleep(1000);
55 }
56
57 @Test (priority=3)
58 public void SearchEmployeeTest() throws InterruptedException {
59 // Clicking on Employee list
60 driver.findElement(By.LinkText("Employee List")).click();
61 Thread.sleep(1000);
62 // Entering Employee name
63 driver.findElement(By.xpath("//input[@placeholder='Type for hints...']")).sendKeys("Rahul M Sharma");
64 Thread.sleep(1000);
65 // Clicking on search button
66 driver.findElement(By.xpath("//button[@class='oxd-button oxd-button--medium oxd-button--secondary orangehrm-left-space']")).click();
67 Thread.sleep(1000);
68 // scroll down the window
69 JavascriptExecutor js=( JavascriptExecutor )driver;
70 js.executeScript("window.scrollTo(0,400);");
71 Thread.sleep(2000);
72 js.executeScript("window.scrollTo(0,-400);");
73 Thread.sleep(5000);
74 }
```



```
74 }
75
76 @Test (priority=4)
77 public void logout() throws InterruptedException {
78 driver.findElement(By.xpath("//p[@class='oxd-userdropdown-name']")).click();
79 Thread.sleep(1000);
80 driver.findElement(By.xpath("//a[@href='/web/index.php/auth/logout']")).click();
81 Thread.sleep(4000);
82 }
83
84 @AfterTest
85 public void tearDown() {
86 if (driver != null) {
87 driver.quit();
88 }
89 }
90 }
```

Class Name: OrangeHRMAutomation

- **Purpose:** Automate actions in the OrangeHRM web application.
- **WebDriver:** Uses ChromeDriver as the browser driver.

Methods in OrangeHRMAutomation class

1. setUp()

- a. Initializes WebDriver.
- b. Maximizes browser window and sets implicit wait.

b. LoginTest()

- a. Logs into the OrangeHRM application.
- b. Uses explicit waits with Thread.sleep() to handle element loading.

c. AddEmployeeTest()

- a. Navigates to the "PIM" section.
- b. Fills in employee details (first name, middle name, last name, and ID).
- c. Submits the employee information.

d. SearchEmployeeTest()

- Searches for an employee by ID in the "Employee List."
- Scrolls to view employee details using JavaScriptExecutor.

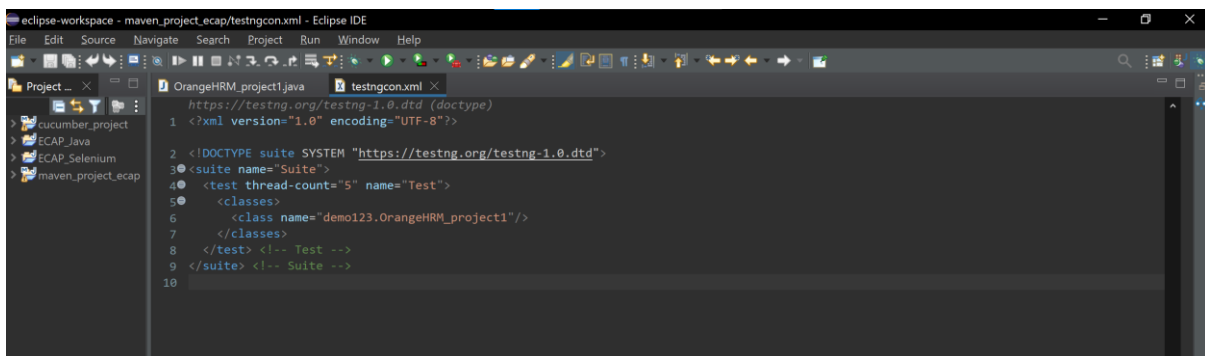
e. logoutTest()

- Logs out of the OrangeHRM application.

f. tearDown()

- Quits the WebDriver instance after tests are completed.

XML script:



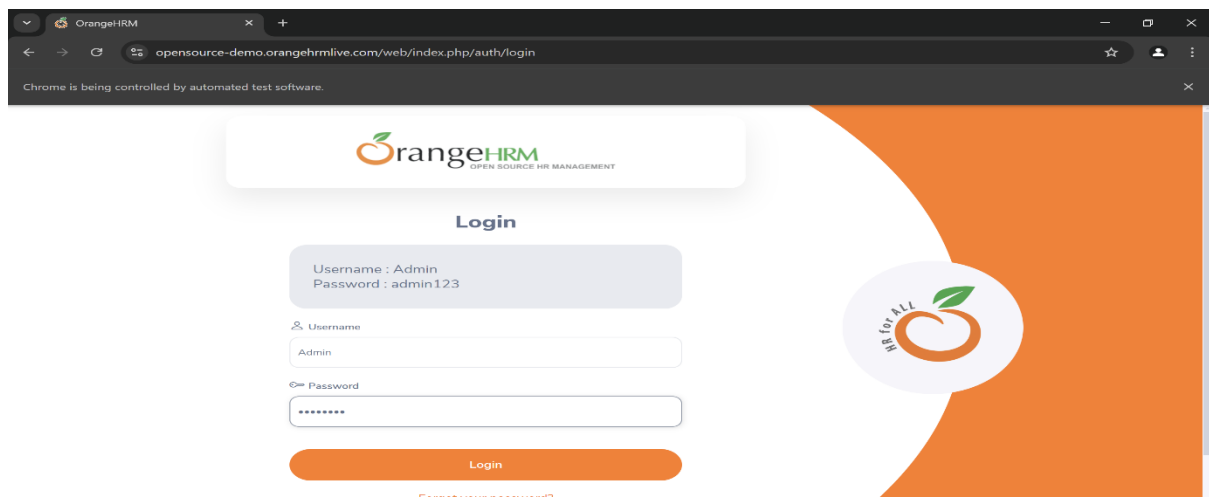
```
eclipse-workspace - maven_project_ecap/testngcon.xml - Eclipse IDE
File Edit Source Navigate Search Project Run Window Help
Project: ...
  cucumber_project
  ECAP_Java
  ECAP_Selenium
  maven_project_ecap
OrangeHRM_project1.java testngcon.xml
https://testng.org/testng-1.0.dtd (doctype)
1 <?xml version="1.0" encoding="UTF-8"?>
2
3 <!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">
4 <suite name="Suite">
5   <test thread-count="5" name="Test">
6     <classes>
7       <class name="demo123.OrangeHRM_project1"/>
8     </classes>
9   </test> <!-- Test -->
10 </suite> <!-- Suite -->
```

XML Configuration: testngOrangeHRM.xml

- Defines a suite with a test class (demo123.OrangeHRM_project1).
- thread-count is set to 5 for parallel execution if needed.

Output of above code:

- Logging into the OrangeHRM application.



- ii. **Clicking on PIM module in side menu bar and in PIM clicking on the Add employee module**

OrangeHRM

opensource-demo.orangehrmlive.com/web/index.php/pim/addEmployee

Chrome is being controlled by automated test software.

Upgrade manda user

PIM

Configuration Employee List Add Employee Reports

Add Employee

Employee Full Name*

Rahul Middle Name Last Name

Employee Id

0379

Create Login Details

* Required

Cancel Save

- iii. **Adding the “First Name”, “MiddleName”, “Last Name” and “Employee ID” of the em[ployee and clicking on “Save”**

OrangeHRM

opensource-demo.orangehrmlive.com/web/index.php/pim/addEmployee

Chrome is being controlled by automated test software.

Upgrade manda user

PIM

Configuration Employee List Add Employee Reports

Add Employee

Employee Full Name*

Rahul M Sharma

Employee Id

0379

Create Login Details

* Required

Cancel Save

- iv. Searching for the added employee details in Employee List and verifying if the new employee details are added or not by entering “Employee ID” in Employee list and Click on search button.

The screenshot shows the OrangeHRM web application interface. The browser address bar displays 'opensource-demo.orangehrmlive.com/web/index.php/pim/viewEmployeeList'. The page title is 'Employee List'. The left sidebar contains a menu with options: Search, Admin, PIM (selected), Leave, Time, Recruitment, My Info, Performance, Dashboard, Directory, and Maintenance. The main content area is titled 'Employee Information' and contains a search form with the following fields: Employee Name (Rahul M Sharma), Employee Id (empty), Employment Status (-- Select --), Include (Current Employees Only), Searching... (empty), Job Title (-- Select --), and Sub Unit (-- Select --). There are 'Reset' and 'Search' buttons at the bottom right of the form. A '+ Add' button is located at the bottom left of the main content area.

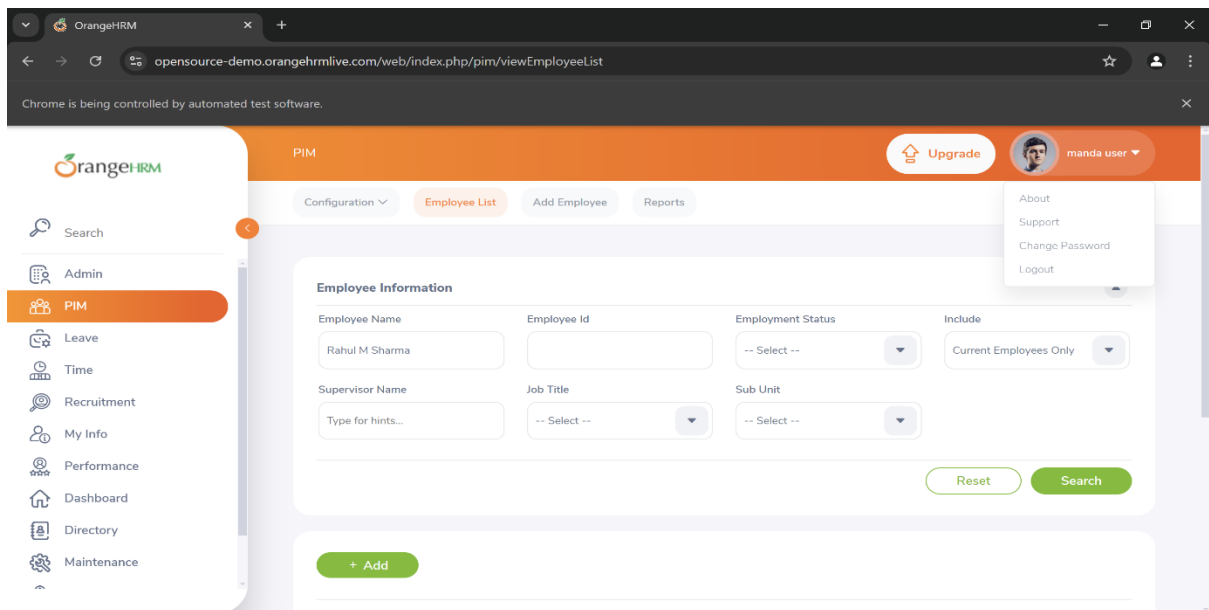
- v. The result record shows the Employee details we searched for in Employee list

The screenshot shows the OrangeHRM web application interface displaying search results. The browser address bar displays 'opensource-demo.orangehrmlive.com/web/index.php/pim/viewEmployeeList'. The page title is 'Employee List'. The left sidebar contains a menu with options: Search, Admin, PIM (selected), Leave, Time, Recruitment, My Info, Performance, Dashboard, Directory, and Maintenance. The main content area is titled 'Employee List' and contains a search form with the following fields: Employee Name (Rahul M Sharma), Employee Id (empty), Employment Status (-- Select --), Include (Current Employees Only), Searching... (empty), Job Title (-- Select --), and Sub Unit (-- Select --). There are 'Reset' and 'Search' buttons at the bottom right of the form. A '+ Add' button is located at the bottom left of the main content area. Below the search form, there is a table with 2 records found.

<input type="checkbox"/>	Id	First (& Middle) Name	Last Name	Job Title	Employment Status	Sub Unit	Supervisor	Actions
<input type="checkbox"/>	0383	Rahul M	Sharma					
<input type="checkbox"/>	0379	Rahul M	Sharma					

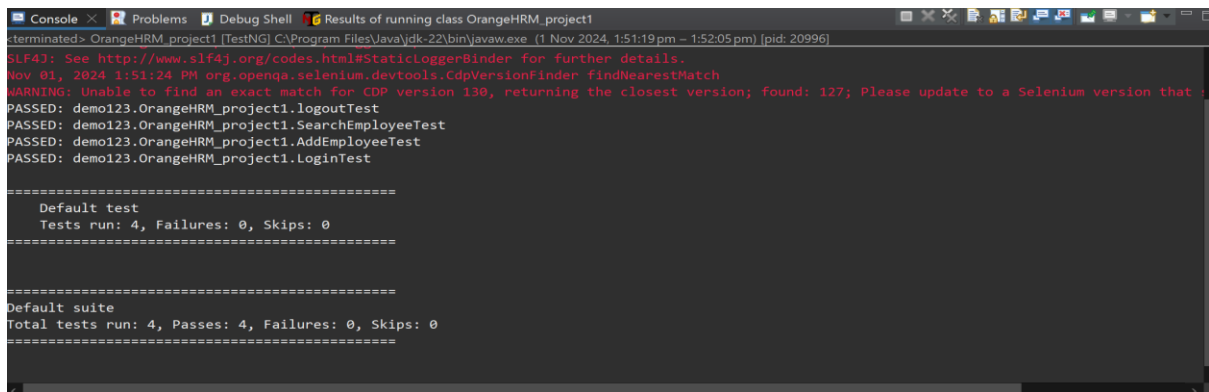
OrangeHRM OS 5.7
© 2005 - 2024 OrangeHRM, Inc. All rights reserved.

- vi. Now performing logout functionality by clicking on profile image, it will open the menu in which the list of options will be there in which we click on logout. And the application Successfully logs out.

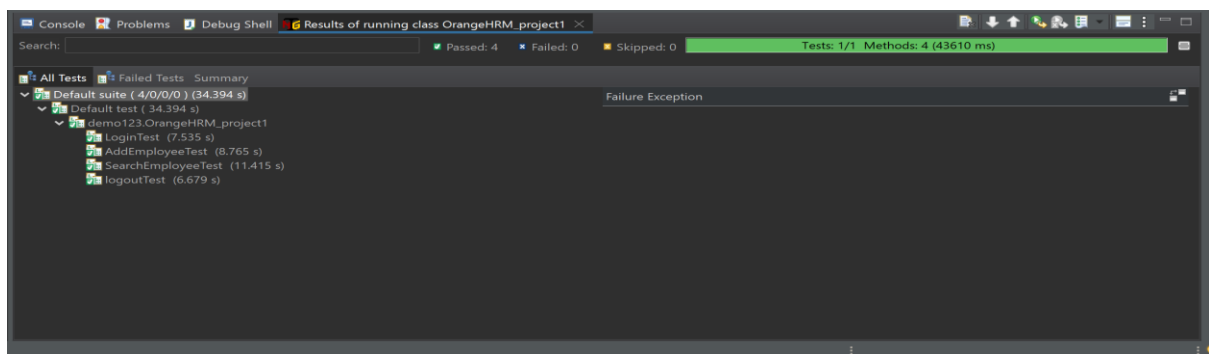


Console output:

The below console output shows that the 4 test cases have been passed.



TestNG output:



CODE:

```
package demo123;

import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.*;

public class OrangeHRM_project1 {
    public WebDriver driver;

    @BeforeTest
    public void setup() throws InterruptedException {
        driver = new ChromeDriver();
        // Maximize the window
        driver.manage().window().maximize();
        // Launching the URL
        driver.get("https://opensource-demo.orangehrmlive.com/web/index.php/auth/login");
        Thread.sleep(1000);
    }

    @Test (priority=1)
    public void LoginTest() throws InterruptedException {
        // Entering the user name
        driver.findElement(By.xpath("//input[contains(@name,'username')]")).sendKeys("Admin");
        Thread.sleep(1000);
        // Entering the password

        driver.findElement(By.xpath("//input[contains(@name,'password')]")).sendKeys("admin123");
        Thread.sleep(1000);
        // Clicking on login button
```

```
driver.findElement(By.xpath("//button[@type='submit']")).click();  
Thread.sleep(5000);  
}
```

@Test (priority=2)

public void AddEmployeeTest() throws InterruptedException {

// Navigate to PIM module

driver.findElement(By.xpath("//span[text()='PIM']")).click();

Thread.sleep(1000);

// Clicking on add employee

driver.findElement(By.linkText("Add Employee")).click();

Thread.sleep(1000);

// Entering the first name

driver.findElement(By.xpath("//input[@name='firstName']")).sendKeys("Rahul");

Thread.sleep(1000);

// Entering the middle name

driver.findElement(By.xpath("//input[@name='middleName']")).sendKeys("M");

Thread.sleep(1000);

// Entering the last name

driver.findElement(By.xpath("//input[@name='lastName']")).sendKeys("Sharma");

Thread.sleep(1000);

// Clicking on save button

driver.findElement(By.xpath("//button[@type='submit']")).click();

Thread.sleep(1000);

}

@Test (priority=3)

public void SearchEmployeeTest() throws InterruptedException {

// Clicking on Employee list

driver.findElement(By.linkText("Employee List")).click();

Thread.sleep(1000);

// Entering Employee name


```

        driver.findElement(By.xpath("//input[@placeholder='Type for hints...']")[1])).sendKeys("Rahul M Sharma");

        Thread.sleep(1000);

        // Clicking on search button

        driver.findElement(By.xpath("//button[@class='oxd-button oxd-button--medium oxd-button--secondary orangehrm-left-space']")).click();

        Thread.sleep(1000);

        // scroll down the window

        JavascriptExecutor js=( JavascriptExecutor )driver;

        js.executeScript("window.scrollTo(0,400);");

        Thread.sleep(2000);

        js.executeScript("window.scrollTo(0,-400);");

        Thread.sleep(5000);

    }

```

@Test (priority=4)

```

public void logout() throws InterruptedException {

    driver.findElement(By.xpath("//p[@class='oxd-userdropdown-name']")).click();

    Thread.sleep(1000);

    driver.findElement(By.xpath("//a[@href='/web/index.php/auth/logout']")).click();

    Thread.sleep(4000);

}

```

@AfterTest

```

public void tearDown() {

    if (driver != null) {

        driver.quit();

    }

}

}

```