

Tasks – Selenium WebDriver

Section 1: Different Flavours of Selenium

1. **Theory Task:**
 - Write a short note (150–200 words) explaining **the four main flavours of Selenium** and give one real-life usage example for each.
 - Compare Selenium IDE vs Selenium WebDriver in a table.
 2. **Research Task:**
 - Find two cloud platforms that use **RemoteWebDriver** (e.g., BrowserStack, Sauce Labs).
 - Write how they help in cross-browser testing.
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Section 2: WebDriver Introduction & Architecture

3. **Flow Diagram Task:**
 - Draw the **WebDriver Architecture** showing interaction between **Test Script** → **Client Library** → **Browser Driver** → **Browser**.
 - Label each step.
 4. **Explaining Task:**
 - In your own words, explain what happens internally when `driver.get("https://example.com")` is executed.
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Section 3: Installation & Configuration

5. **Setup Task:**
 - Install JDK, Eclipse, and Selenium JARs.
 - Download ChromeDriver and configure it in a Java project.
 - Take a screenshot of Eclipse with the Selenium JARs added in the **Build Path**.
 6. **Driver Manager Task:**
 - Use **WebDriverManager** (instead of manually downloading drivers) in a Maven project to launch Chrome.
 - Share the working code.
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Section 4: Creating First Test Script

7. Hello Selenium Task:

- Write a script that opens <https://google.com>, searches for "Selenium WebDriver", and prints the number of search results.

8. Title Validation Task:

- Write a script that opens <https://opensource-demo.orangehrmlive.com/>, logs in with admin credentials, and verifies if the **page title** after login is "OrangeHRM".
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Section 5: Locators Practice

Using the OrangeHRM Demo site:

URL: <https://opensource-demo.orangehrmlive.com/>

9. By ID

- Locate the username and password fields by `id` and log in.

10. By Name

- Locate the password field by `name` and log in.

11. By Class Name

- Locate the **Login** button by its `class` name and click it.

12. By Tag Name

- Find and print **all hyperlinks** on the dashboard.

13. By XPath

- Locate the **Admin** menu by XPath and click it.
- Use both **absolute** and **relative** XPath.

14. By CSS Selector

- Locate the search box in the Admin tab using CSS selector and type "Admin".
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Section 6: Combined Task

15. End-to-End Automation Task:

- Open <https://opensource-demo.orangehrmlive.com/>
 - Log in using valid credentials.
 - Navigate to the **PIM** section.
 - Add a new employee (first name, last name, upload photo).
 - Verify the employee appears in the list.
 - Log out.
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