Testleaf
Always Ahead

Home Assignments –Playwright Features

1. Reading Environment Files

Learning Objective:

Master the techniques to handle environment files and dynamic configurations in Playwright.

Expected Completion Time:

- **Best Case:** 15 minutes
- **Average Case:** 20 minutes

Assignment Details:

Your task is to read environment files dynamically and configure test execution accordingly.

Precondition:

- Launch Chromium in non-headless mode.
- Use required fixtures.
- Navigate to https://login.salesforce.com/ and Leaftaps.

Instructions:

1. Create an .env file with different configurations (e.g., staging.env, prod.env).
2. Write a Playwright test script that reads the environment file dynamically.
3. Set the environment variable in PowerShell and check the assigned value.
4. Validate the configurations by logging the environment variables in your test script.

2. Test Annotations

Learning Objective:

Understand and implement different test annotations in Playwright to control test execution flow.

Expected Completion Time:

- **Best Case:** 15 minutes
- **Average Case:** 25 minutes

Assignment Details:

Your task is to apply test annotations in Playwright to manage test execution.

Precondition:

- Ensure test framework setup is complete.
- Define necessary test scenarios in Leaftaps and Salesforce.

Instructions:

1. Create test cases utilizing the following annotations:
    - test.only → Ensure only this test runs.
    - test.skip → Skip the test execution.
    - test.fail → Mark tests with known issues.
    - test.fixme → Indicate tests that need fixes.
    - test.slow → Mark flaky tests with an increased timeout.
    - test.step → Add step-based logs to the report.

3. Handling Multiple Files

Learning Objective:

Manage and dynamically load test data using Faker and JSON files in Playwright.

Expected Completion Time:

- **Best Case:** 20 minutes
- **Average Case:** 30 minutes

Assignment Details:

Your task is to handle multiple test data files and generate dynamic test data. Use hooks to set up the pre-condition steps using test.beforeAll() and test.beforeEach()

Precondition:

- Install Faker for generating test data.
- Ensure test script can read JSON test data files

Instructions:

1. Create a test script that generates random user data for multiple test cases.
2. Implement the above steps for **Leaftaps (Leads-create , Edit and Delete)** and **Salesforce** applications.
3. Run the test in parallel and serial

    - describe.parallel → Run test groups in parallel.

- describe.serial → Ensure test cases execute in sequence, impacting each other.

4.

Testcase: 1

- Login to https://login.salesforce.com - Username: dilip@testleaf.com - Password: leaf@2024

- Click on the toggle menu button from the left corner

- Click View All and click Legal Entities from App Launcher

- Click on the Dropdown icon in the legal Entities tab

- Click on New Legal Entity - Enter Name as 'Salesforce Automation by *Your Name*'

- Click save and verify Legal Entity Name

Testcase: 2

- Click View All and click Legal Entities from App Launcher

- Click on the Dropdown icon in the legal Entities tab

- Click on New Legal Entity - Enter the Company name as 'TestLeaf'.

- Enter Description as 'Salesforces'.

- Select Status as 'Active'

- Click on Save

- Verify the Alert message (Complete this field) displayed for Name

Hint: Data to kept in json

New Legal Entity name, Description

4. Execution Strategies

Learning Objective:

Optimize Playwright test execution using filtering, debugging, and retries.

Expected Completion Time:

- **Best Case:** 20 minutes
- **Average Case:** 30 minutes

Assignment Details:

Your task is to execute specific test cases efficiently and debug test runs.

Instructions:

1. Run specific test cases using grep.
2. Execute a single test file in debug mode.
3. Implement test retries and timeouts in playwright.config.ts.
4. Use Playwright code generation tools to record and generate a test script based on user actions.
5. Perform these execution strategies for **Leaftaps** and **Salesforce** applications.

Expected Outcome: By completing these assignments, you will gain hands-on experience with environment management, test annotations, data handling, and execution optimizations in Playwright for **Leaftaps** and **Salesforce** applications.