**\*\*Project Name:** Identify Courses**\*\***

**# Overview**

This project aims to automate the coursera.org using Selenium WebDriver with cucumber and TestNG framework. The automation process involves navigating through the coursera.org website and performing actions according to requirements.

**## Libraries and Dependencies**

- \*\*Maven Repository:\*\* Maven 4.0.0

- \*\*io.cucumber\*\*cucumber-junit 7.15.0

- \*\*io.cucumber\*\*cucumber-java 7.15.0

- \*\*selenium-java 4.18.1

- \*\*Apache POI:\*\* 5.2.5

- \*\*Loggers:\*\* 3.0.0-beta2

- \*\*Extent Report:\*\* 5.1.0

- \*\*TestNG:\*\* 7.9.0

- \*\*extentreports-cucumber7-adapter\*\* 1.14.0

**## Automation Flow**

1. Search for web development courses for Beginners level & English Language and extract the course names, total learning hours & rating for first 2 courses
2. Look for Language Learning; Extract all the languages and different levels with its total count & display them
3. In Home page, go to "For Enterprise"; Look into Courses for Campus under Product; Fill the  "Ready to transform" form with any one input invalid (example: email); Capture the error message & display

**## Libraries Explanation**

- \*\*Maven Repository:\*\* Used for project management and dependency resolution.

- \*\*Apache POI:\*\* Handles Excel operations for data-driven testing.

- \*\*TestNG:\*\* Facilitates test case organization and execution.

- \*\*TestNG Report:\*\* Generates comprehensive test reports.

- \*\*Selenium WebDriver:\*\* Automates browser interactions.

- \*\*Loggers:\*\* Facilitates logging for better debugging.

- \*\*extentreports-cucumber7-adapter\*\* Generates cucumber reports.

- \*\*io.cucumber\*\*cucumber-junit 7.15.0

- \*\*io.cucumber\*\*cucumber-java 7.15.0

**## Screenshots**

Screenshots are captured at relevant steps for documentation and analysis.

**## How to Run**

1. \*\*Open Eclipse IDE:\*\*

- Launch Eclipse IDE on your machine.

2. \*\*Import Project:\*\*

- Select `File` -> `Import` from the menu.

- Choose `Existing Maven Projects` and click `Next`.

- Browse to the directory where you cloned the repository and select the project.

3. \*\*Update Maven Project:\*\*

- Right-click on the project in the Project Explorer.

- Choose `Maven` -> `Update Project`.

- Click `OK` to update dependencies.

4. \*\*Set Up Configuration:\*\*

- Open the `src/test/resources/config.properties` file.

- Update any configuration parameters like browser type, URLs, etc., as needed.

5. \*\*Run Test Suite:\*\*

- Locate the test suite file (`testng.xml`)

- Right-click on the file and choose `Run As` -> `TestNG Suite`.

6. \*\*Run Test Features:\*\*

- Locate the test suite file (`TestRunner.java`)

- Right-click on the file and choose `Run As` -> `JUnit`.

7. \*\*View Reports:\*\*

- After execution, open the `reports` folder.

- Find the TestNG file (`index.html`) for detailed test case reports.

7. \*\*View Reports:\*\*

- After execution, open the `reports` folder.

- Find the cucumber report(`myreport.html`) for detailed test case reports.

**## Reporting**

1. \*\*Locate Test Reports:\*\*

- After the execution, navigate to the `test-output` folder in the project directory.

2. \*\*Open Extent Report:\*\*

- Inside the `test-output` folder, find the Extent Report HTML file named `index.html`.

3. \*\*Locate cucumber Reports:\*\*

- After the execution, navigate to the `test-output` folder in the project directory.

4. \*\*Open cucumber Report:\*\*

- Inside the `test-output` folder, find the junitreports folder.

5. \*\*View Test Reports:\*\*

- Open the `index.html` file using any web browser.

5. \*\*View cucumber Reports:\*\*

- Open the ‘junit reports` folder and open the test files based on testcases using any web browser.

- These reports provides detailed overview of test executions, including passed and failed tests, test duration, and any exceptions encountered.

4. \*\*Screenshots and Logs:\*\*

- screenshots captured during test execution and relevant logs for test cases.

5. \*\*Analyze Results:\*\*

- Utilize the visual representation in the TestNG and cucumber Report to quickly identify test status and any issues encountered during the test run.

**## Contributors**

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**## Known Issues**

- \*\*Issue 1:Internet Bandwidth\*\*

- Description: As the internet bandwidth is weak which becomes an issue while running the project.

- Workaround: Run the project with strong bandwidth so that the issue is resolved.

**## Future Enhancements**

- \*\*Enhancement 1: Integration with CI/CD\*\*

- Description: Integrate the automation script with popular CI/CD platforms for continuous testing.

- Timeline: Targeting a future release for streamlined workflows.

- \*\*Enhancement 2: Enhanced Logging\*\*

- Description: Introduce more detailed logging to aid in debugging and analysis of test results.

- Timeline: Considered for the upcoming sprint.