FitPeo Revenue Calculator Automation

Objective

The objective of this guide is to provide detailed instructions on how to set up, configure, and run an automation script for the FitPeo Revenue Calculator using Selenium WebDriver and Java. This guide will help you build the project from scratch, ensuring a clear path to success.

Prerequisites

Before starting, make sure you have the following installed on your system:

1. **Java Development Kit (JDK)**: Version 11 or higher.

   o Download and install from [Oracle's JDK Download page](#).

2. **Apache Maven**: For dependency management.

   o Download and install from [Apache Maven website](#).

3. **IDE (Integrated Development Environment)**: We recommend IntelliJ IDEA, Eclipse, or any IDE that supports Java development.

4. **Google Chrome**: Make sure Google Chrome is installed on your machine.

5. **ChromeDriver**: WebDriver for Chrome browser. This will be automatically managed by the WebDriverManager library.

Step 1: Create a New Maven Project

1. **Open Your IDE** (e.g., IntelliJ IDEA or Eclipse):

   o For IntelliJ IDEA, select **File** > **New** > **Project** > **Maven**.

   o For Eclipse, select **File** > **New** > **Maven Project**.

2. **Project Setup**:

   o Choose **Java** as the project language.

   o Select a location for your project on your local machine.

   o Set the **GroupId** to com.fitpeo.assignment and **ArtifactId** to FitPeoCalculatorAutomation.

   o Finish the setup to create the Maven project structure.

Step 2: Add Dependencies to pom.xml

The pom.xml file is the configuration file for your Maven project, where we define dependencies (libraries) that will be used in the project.

1. Open the pom.xml file in your project.
2. Add the following dependencies inside the <dependencies> tag:
3. <dependencies>
4.   <!-- Selenium WebDriver dependency -->
5.   <dependency>
6.   <groupId>org.seleniumhq.selenium</groupId>
7.   <artifactId>selenium-java</artifactId>
8.   <version>4.12.1</version>
9.   </dependency>
10.
11.   <!-- WebDriver Manager dependency -->
12.   <dependency>
13.   <groupId>io.github.bonigarcia</groupId>
14.   <artifactId>webdrivermanager</artifactId>
15.   <version>5.5.3</version>
16.   </dependency>
17. </dependencies>
18. **Update Maven Dependencies**:

      o In IntelliJ IDEA, right-click the project folder in the Project view, go to **Maven** > **Reload Project**.

      o In Eclipse, right-click the project folder and select **Maven** > **Update Project**.

This will download and install all necessary dependencies for Selenium WebDriver and WebDriverManager.

Step 3: Create the Java Class for Automation Script

1. Inside the src/main/java/ directory, create the following package structure:

2. com/revenuecalculator/automation

3. Inside the automation package, create a new Java class named RevenueCalculatorTest.java.

Step 4: Set Up WebDriver and Write the Automation Script

1. In the RevenueCalculatorTest.java file, write the following code to set up WebDriver and automate interactions with the FitPeo website. The code will:

      o Launch the Chrome browser.

      o Navigate to the FitPeo homepage and Revenue Calculator page.

      o Interact with the slider and text fields.

      o Select checkboxes for CPT codes.

      o Validate the reimbursement value.

2. **WebDriver Setup**:

   o   Use the WebDriverManager to automatically manage the ChromeDriver version.

3. **Automation Actions**:

   o   Automate navigating to the FitPeo homepage.

   o   Scroll to and adjust the slider.

   o   Interact with the text field and update the slider value.

   o   Select the necessary checkboxes (CPT codes).

   o   Verify the total recurring reimbursement value.

Step 5: Build the Project

1. **Build Project**:
   After setting up your Maven dependencies and writing the automation script, you need to build the project.

   o   In IntelliJ IDEA, right-click the project folder and select **Build** > **Build Project**.

   o   In Eclipse, right-click the project and select **Build Project**.

Step 6: Run the Test Script

1. **Run the Script**:

   o   To run the test script, right-click the RevenueCalculatorTest.java file and select **Run**.

   o   This will open the Chrome browser, navigate to the website, and perform all actions as defined in the script.

2. **Monitor Execution**:
   The script will perform the following actions:

   o   Open Chrome browser and load the FitPeo homepage.

   o   Click the "Revenue Calculator" link.

   o   Scroll to the slider, adjust its value, and update the corresponding text field.

   o   Select the checkboxes for CPT codes.

   o   Validate the "Total Recurring Reimbursement" value.

3. **Check Console Output**:
   The console will display success or failure messages for each action. If everything is successful, you should see a message confirming that the reimbursement value is correctly validated.

Step 7: Troubleshooting

If you encounter any issues, here are some common problems and solutions:

Problem	Solution
WebDriver Exception	Ensure ChromeDriver is compatible with the version of Google Chrome installed on your system.
Element Not Found	Double-check the XPath of the elements and ensure the FitPeo page structure has not changed.
Timeout Errors	Increase the timeout duration in the WebDriverWait method if the page is loading slowly.
Dependencies Not Downloading	Right-click the project and select **Maven** > **Update Project** to ensure dependencies are downloaded.

Conclusion

Following these steps, you will be able to successfully set up and run the FitPeo Revenue Calculator Automation script from scratch. The script will automate key interactions with the FitPeo website, including navigating pages, adjusting sliders, updating text fields, selecting checkboxes, and verifying the total reimbursement.

If you have any questions or issues during setup or execution, feel free to refer to the troubleshooting section above or contact the project maintainers.

Code Reference

The complete source code for the automation script is located at:
https://github.com/AbdulKhadirAKD/FitPeoAssignment.git