TP ATELIER CUCUMBER :

Setting Up Development Environment

Step 1: Create a Maven Project

Create a new Maven project from scratch and add the following dependencies and plugins to the pom.xml file.

```
<!--
https://mvnrepository.com/artifact/io.cucumber/cucumb
er-java -->
<dependency>
  <groupId>io.cucumber</groupId>
  <artifactId>cucumber-java</artifactId>
  <version>7.3.4</version>
</dependency>
<!--
https://mvnrepository.com/artifact/io.cucumber/cucumb
er-junit -->
<dependency>
  <groupId>io.cucumber</groupId>
  <artifactId>cucumber-junit</artifactId>
  <version>7.3.4</version>
  <scope>test</scope>
</dependency>
```

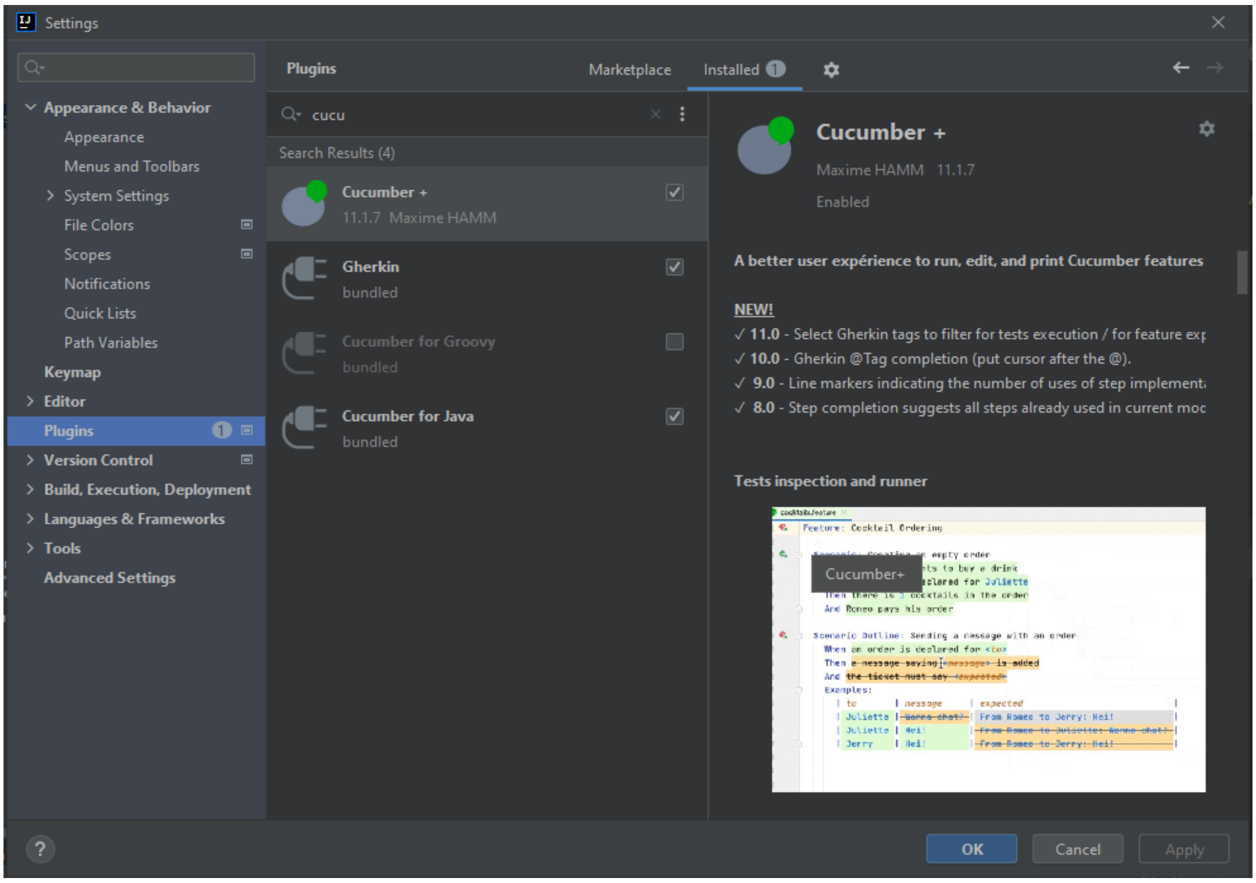
you can take it at :

https://mvnrepository.com/artifact/io.cucumber/cucumber-java/7.3.4

https://mvnrepository.com/artifact/io.cucumber/cucumber-junit/7.3.4

Step 2: Add Cucumber for Java and Gherkin IntelliJ IDEA plugin

Go to *File > Settings > Plugins > search 'Cucumber for Java' and 'Gherkin' > enable.*



Cucumber + 11.1.7 Maxime HAMM ✓
Gherkin bundled ✓
Cucumber for Groovy bundled ☐
Cucumber for Java bundled ✓

Cucumber +
Maxime HAMM 11.1.7
Enabled

A better user expérience to run, edit, and print Cucumber features

NEW!
✓ 11.0 - Select Gherkin tags to filter for tests execution / for feature exp
✓ 10.0 - Gherkin @Tag completion (put cursor after the @).
✓ 9.0 - Line markers indicating the number of uses of step implement
✓ 8.0 - Step completion suggests all steps already used in current moc

Tests inspection and runner

Step 3: Project Directory Structure

The directory structure of the sample project looks like the following.

```
+---.idea
+---main
|   +---java
|   +---resources
\---test
```

```
|   +---java
|   |   \---org.example
|   |   |   |---SearchTest.java
|   |   |---RunTest.java
|   \---resources
|       \---features
|           |---SearchTest.feature
|---pom.xml
```

Getting Started with Development

Step 1: Writing Features

Cucumber executes your **.feature files** in *test/resources/features* directory. These files contain executable specifications written in a domain-specific language (DSL) called **Gherkin** which is a business-readable, plain-text, English-like language with simple grammar. To specify business rules by real-world examples, Gherkin uses main keywords: ***Feature, Scenario, Given, When, Then, And, But, Background, Scenario Outline, Examples*** and some extra syntax **“””** (Doc strings), **|** (Data tables), **@**(Tags), **#** (Comments).

```
Feature: Search on Wikipedia
  Scenario: Search direct on Wiki
    Given Enter search term 'Cucumber'
    When Do search
    Then Single result is shown for 'Cucumber'
```

A `.feature` file is supposed to describe a single feature of the system, or a particular aspect of a feature. It's just a way to provide a high-level description of a software feature, and to group related scenarios. A feature file gets the following format.

Step 2: Writing Step Definitions

Cucumber doesn't know how to execute your scenarios out-of-the-box. It needs Step Definitions to **translate plain text Gherkin steps into actions** that will interact with the system. **When Cucumber executes a Step in a Scenario, it will look for a matching Step Definition to execute.**

When Cucumber matches a Step against a pattern in a Step Definition, it passes the value of all the capture groups to the Step Definition's arguments.

```java
package org.example;

import io.cucumber.java.en.Given;
import io.cucumber.java.en.Then;
import io.cucumber.java.en.When;

public class SearchTest {
    @Given("Enter search term {string}")
    public void enterSearchTermCucumber(String name) {
        System.out.println("test 1");
    }

    @When("Do search")
    public void doSearch() {
        System.out.println("test 2");
    }

    @Then("Single result is shown for {string}")
    public void singleResultIsShownForCucumber(String name) {
        System.out.println("test 3");
    }
}
```

Note that Cucumber does not differentiate between the five-step keywords ***Given, When, Then, And*** and ***But***.

After writing features and step definitions, you are ready to implement the class TestRun.java . Thanks to Cucumber, the annotations and empty methods which map to the steps in feature files can be auto-generated.

Step 3: Writing Test Runner

After writing the features and the step definitions , the test runner code is implemented. In the following code RunTest.java class, note the **@CucumberOptions**. One can define the location of features, glue files (step definitions), and formatter plugins inside this Cucumber options.

```
import io.cucumber.junit.Cucumber;
import io.cucumber.junit.CucumberOptions;
import org.junit.runner.RunWith;
@RunWith(Cucumber.class)
@CucumberOptions(
        features = "src/test/resources/features/SearchTest.feature",
        glue = {"org.example"}

       )
public class RunTest {
}
```

Step 4: Generating Reports

This is one another cool option in Cucumber. If you carefully look at the pom.xml file, you can see maven-project-info-reports-plugin.

Add plugin = {

"pretty",

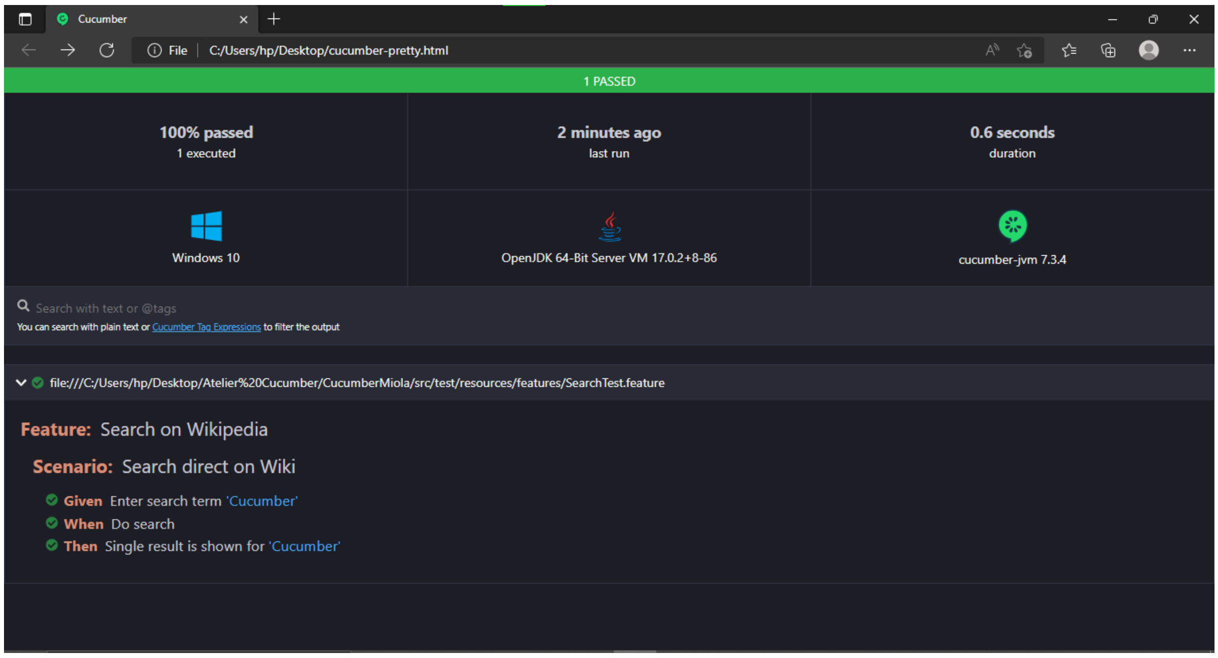
"html:target/cucumber-reports/cucumber-pretty",

"json:target/cucumber-reports/CucumberTestReport.json",

"rerun:target/cucumber-reports/rerun.txt" to the file RunTest.java.

```java
import io.cucumber.junit.Cucumber;
import io.cucumber.junit.CucumberOptions;
import org.junit.runner.RunWith;
@RunWith(Cucumber.class)
@CucumberOptions(
        features = "src/test/resources/features/SearchTest.feature",
        glue = {"org.example"},

        plugin = {
        "pretty",
        "html:target/cucumber-reports/cucumber-pretty",
        "json:target/cucumber-reports/CucumberTestReport.json",
        "rerun:target/cucumber-reports/rerun.txt"
}
       )
public class RunTest {
}
```



1 PASSED

100% passed
1 executed

2 minutes ago
last run

0.6 seconds
duration

Windows 10

OpenJDK 64-Bit Server VM 17.0.2+8-86

cucumber-jvm 7.3.4

Search with text or @tags
You can search with plain text or Cucumber Tag Expressions to filter the output

file:///C:/Users/hp/Desktop/Atelier%20Cucumber/CucumberMiola/src/test/resources/features/SearchTest.feature

Feature: Search on Wikipedia

Scenario: Search direct on Wiki

- **Given** Enter search term 'Cucumber'
- **When** Do search
- **Then** Single result is shown for 'Cucumber'

DONE IS DONE