



# Challenge **Structure, Package, and Build a Java Web Application Using Maven**

# Develop a Simple Calculator Application

Develop a simple calculator application that will help perform mathematical computations. Structure the application using Maven. Write test cases for all the methods in the application.

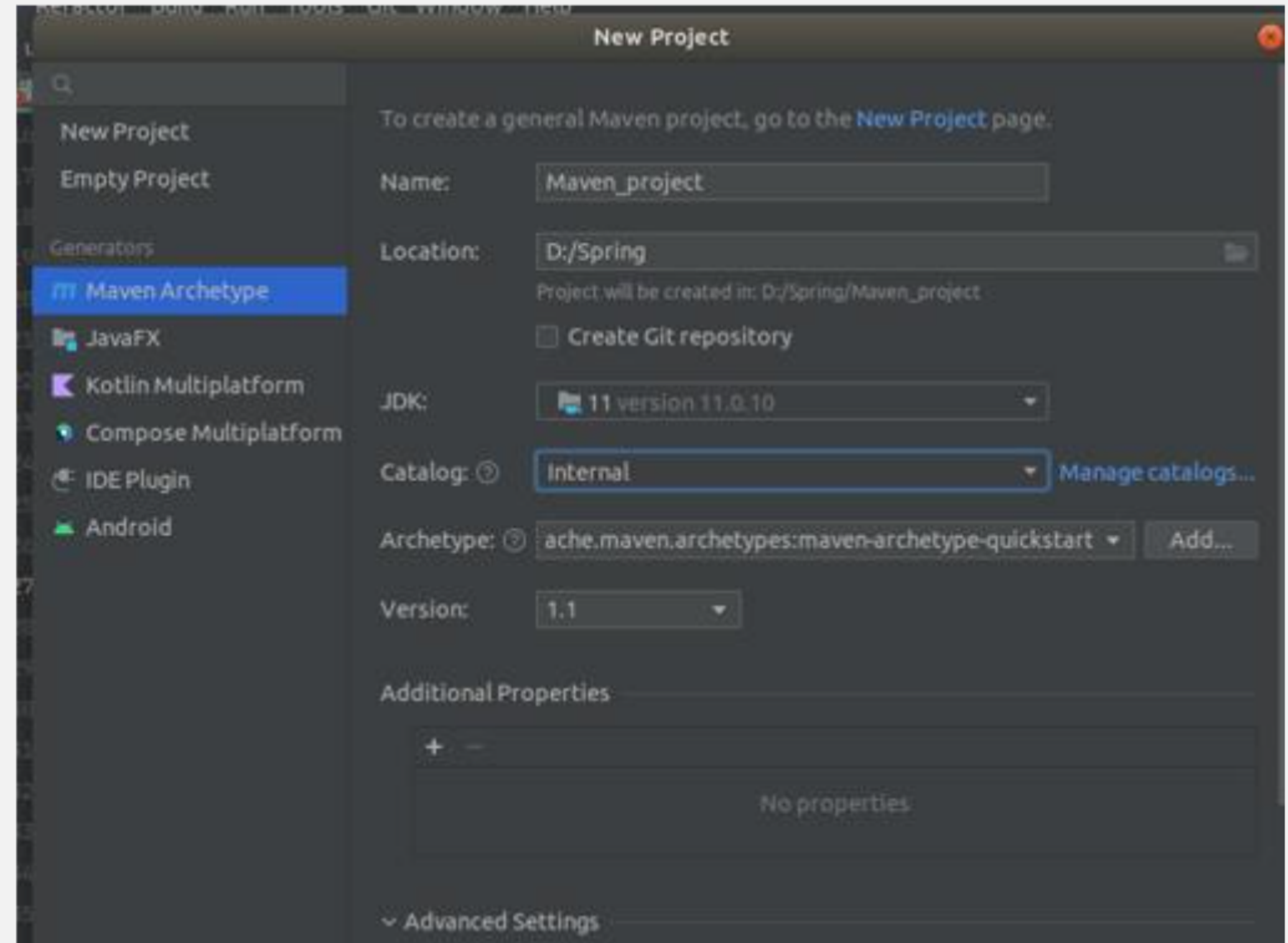
## CHALLENGE





# Implementation Environment

- Install the community edition of IntelliJ on your machine
- Click [here](#) to install
- After installation, open the IntelliJ IDE
- Click on **File -> New Project**
- Select the **Maven Archetype**
- Provide the name of the project and select the location
- Select the Archetype as maven-archetype-quickstart
- Provide groupId and artifactId in Advanced settings
- Click on **Create**



# Challenge: Tasks

- In the `pom.xml`, the Maven compiler must point to Java version 11.
- Ensure JUnit 4 dependencies are included in the `pom.xml`.
- Create a class named `Calculator`, and write the logic for addition, subtraction, multiplication, division, and modulo inside it.
- Write test cases inside `src/java/test` for the methods created in the `Calculator` class.
- Execute Maven commands to compile, test, and package the application.
- Use the `mvn clean compile package` command to create the jar file and build the project.

# Submission Instructions

- There is no boilerplate for this challenge.
- Create a new repository on Git named **BEJ\_C1\_S1\_Maven\_Structure\_MC\_1\_Calculator**.
- After completing the challenge, push the code back to git using the below commands.

```
git init
git remote add origin <url>
git add .
git commit -m "comments on the push"
git push -u origin master
```