

Tutorial for Setting the Framework

Requirements

1. Java JDK 8 (1.8) or newer.
2. IntelliJ Idea Community Edition
3. Internet access

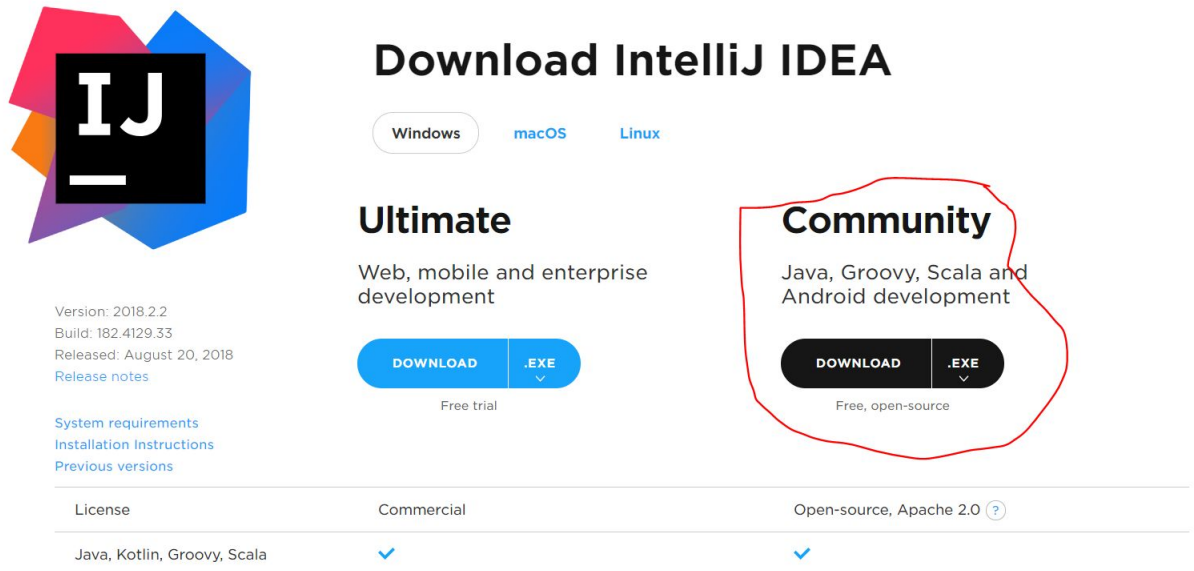
Steps

1. Go to [Oracle's download page](#) and download the Java JDK.



2. Accept license and download JDK for your operating system.

3. Install JDK. For Windows just follow the executable instructions (default installation).
4. Go to [IntelliJ Idea download page](#) and download the community edition of the software.



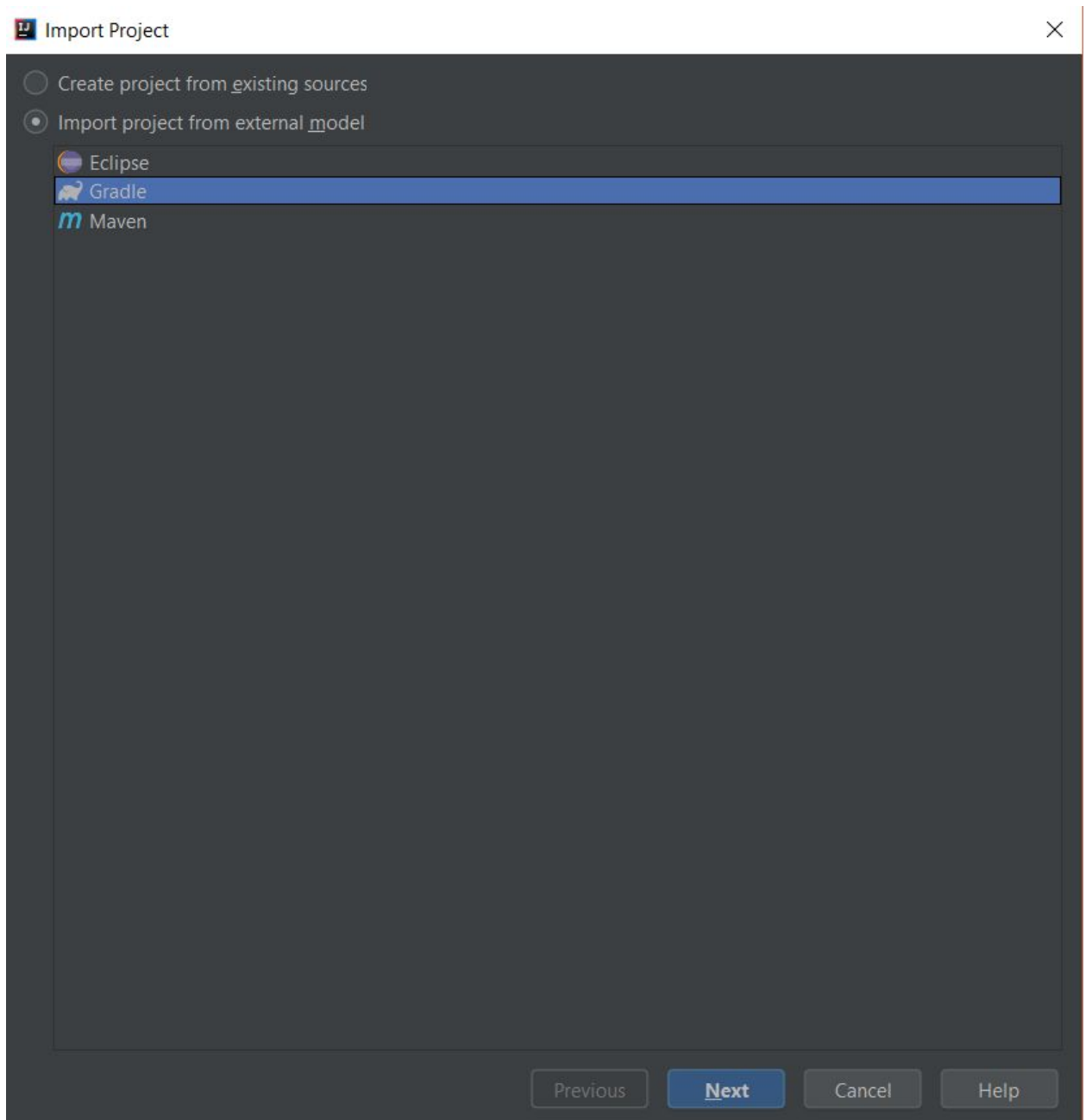
The image shows the IntelliJ IDEA download page. On the left is the IntelliJ logo. To its right, the title "Download IntelliJ IDEA" is followed by tabs for "Windows", "macOS", and "Linux". Below these are two main sections: "Ultimate" and "Community". The "Community" section is circled in red. It describes the software as "Java, Groovy, Scala and Android development" and provides a "DOWNLOAD .EXE" button. Below the buttons, a table compares the "Ultimate" and "Community" editions. The "Community" edition is noted as "Free, open-source" and "Open-source, Apache 2.0".

License	Ultimate	Community
Java, Kotlin, Groovy, Scala	✓	✓

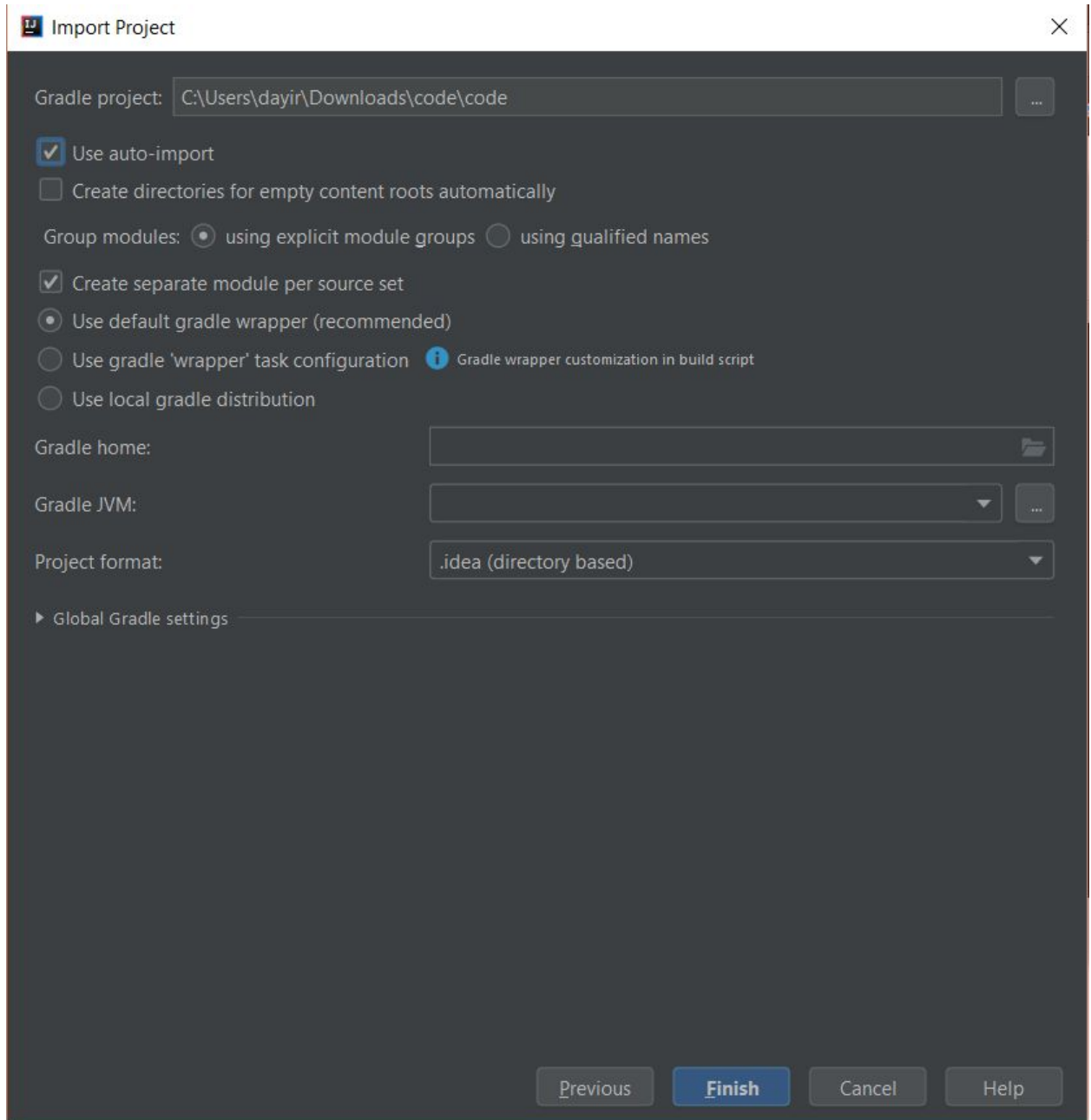
5. Install IntelliJ Idea Community Edition.
6. Open IntelliJ Idea and click Import Project (use default options)



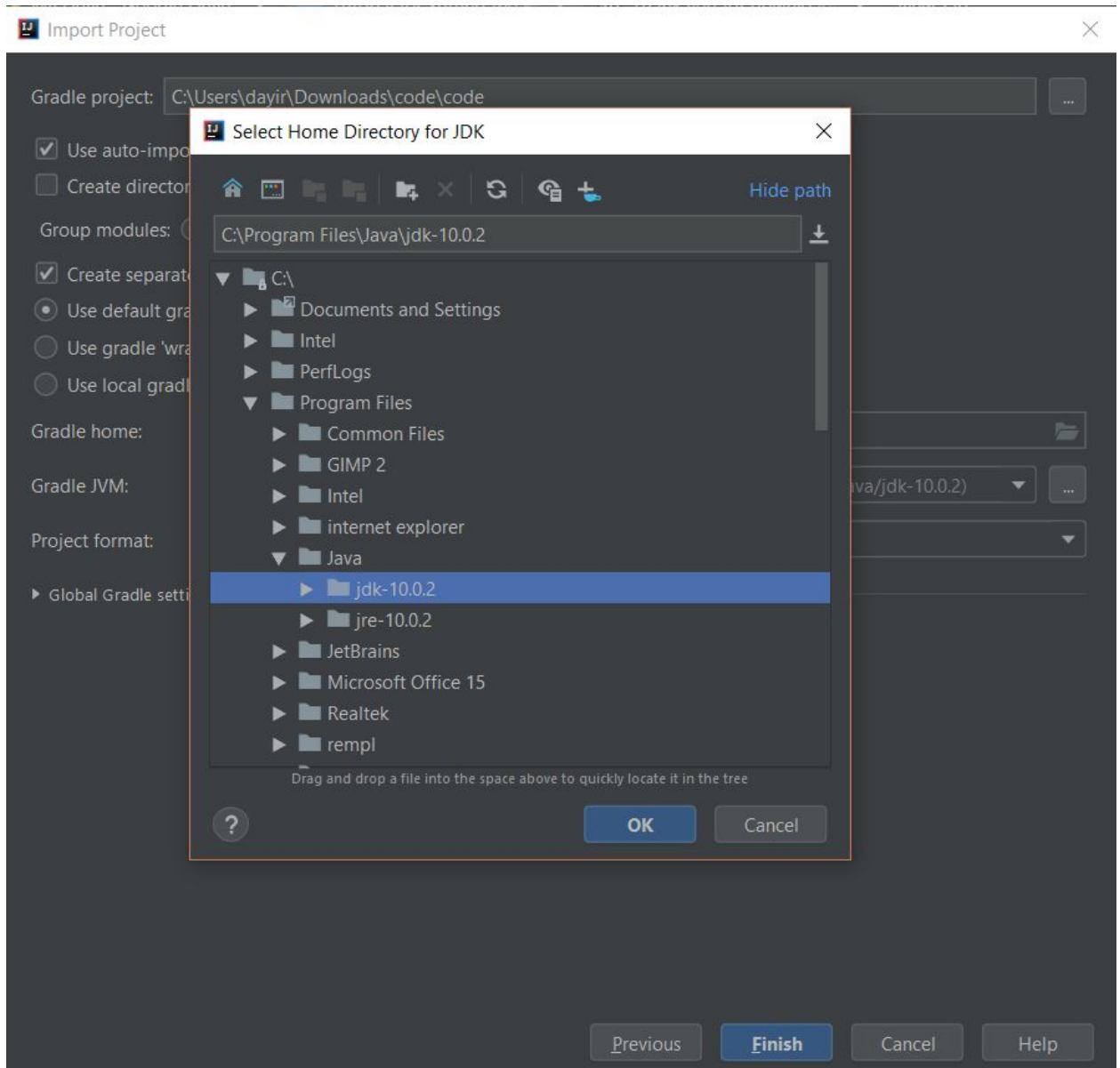
7. Unzip the file and select the folder. The folder must have the folder arithlang and other files in it.
8. Select Import project from external model and select Gradle.



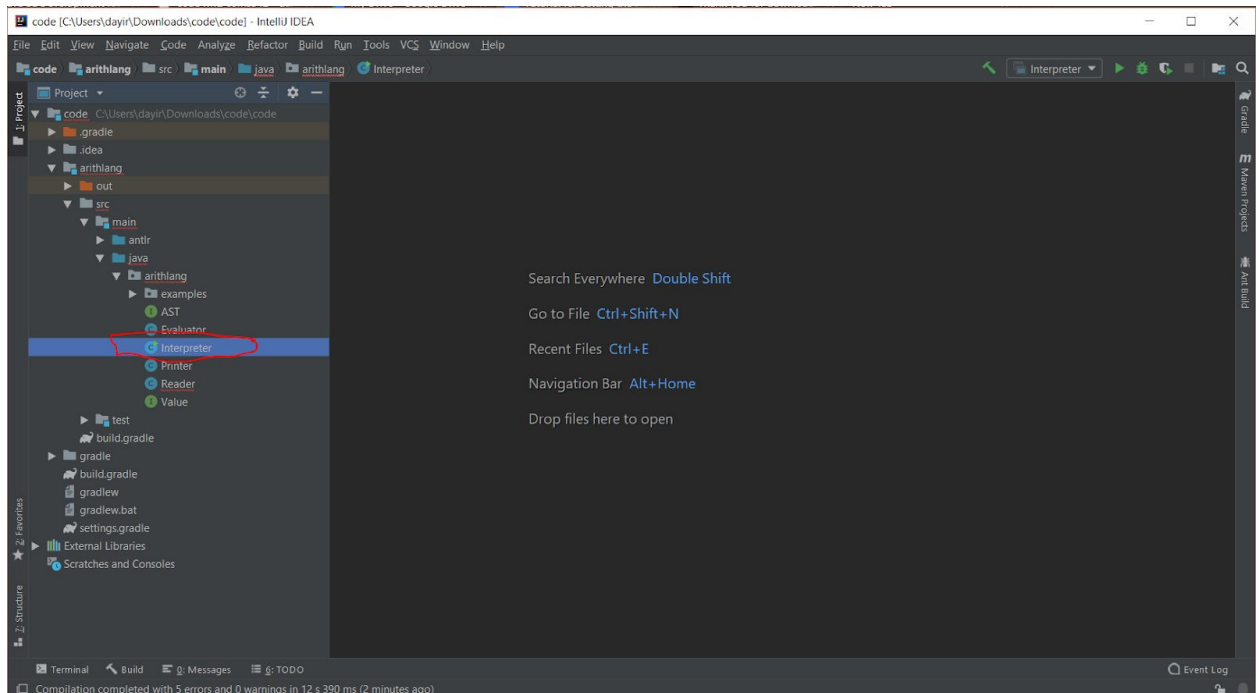
9. Use default gradle wrapper and select Use auto-import.



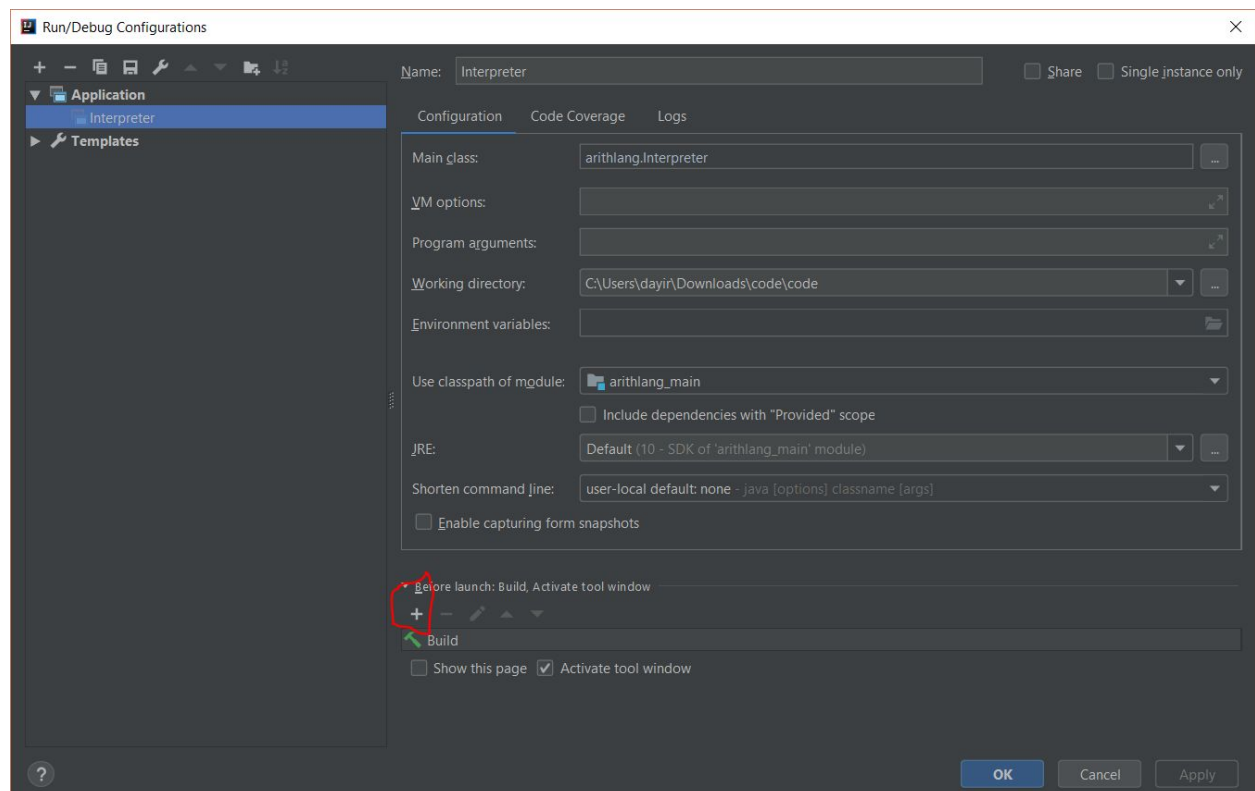
10. Select gradle JVM option in the JDK directory (normally C:\Program Files\Java\jdk-xx (where xx is the version of the JDK) and click Finish.



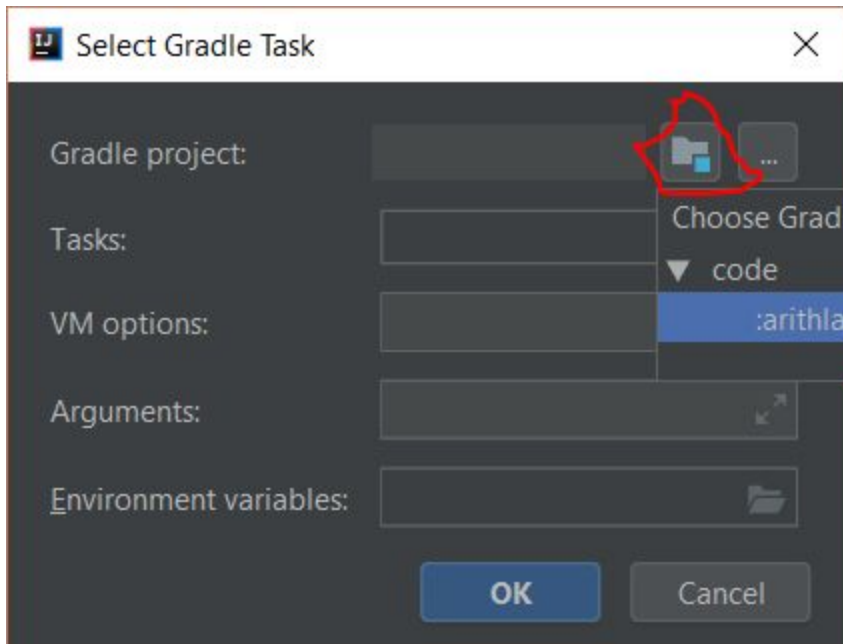
11. IntelliJ Idea will download all the dependencies and the build system. Wait few minutes for that.
12. To run the interpreter right click on the Interpreter java file and click Run Interpreter.main().



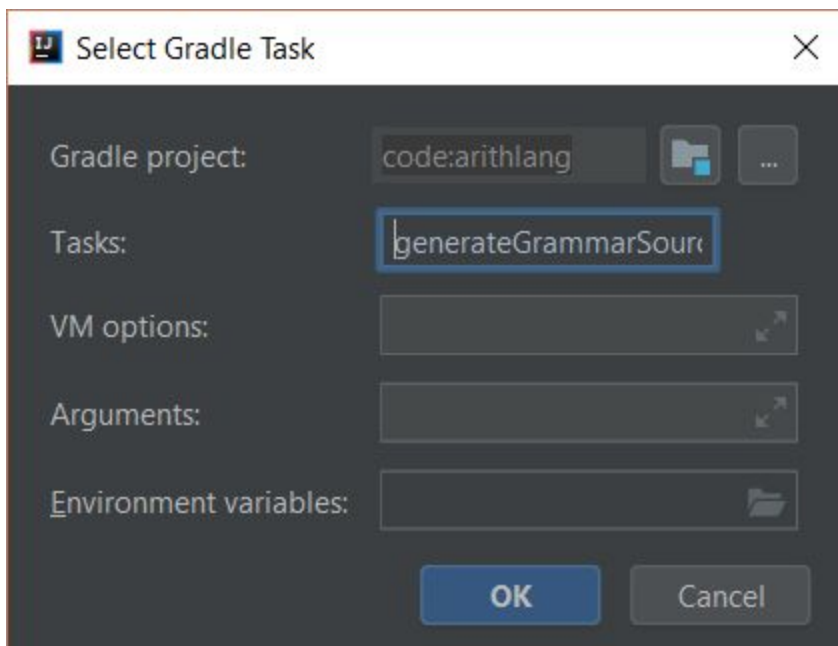
13. Click on the menu Run and click on Edit Configurations. In the Edit Configurations window click on plus sign (+) at the bottom of the window and select run gradle task



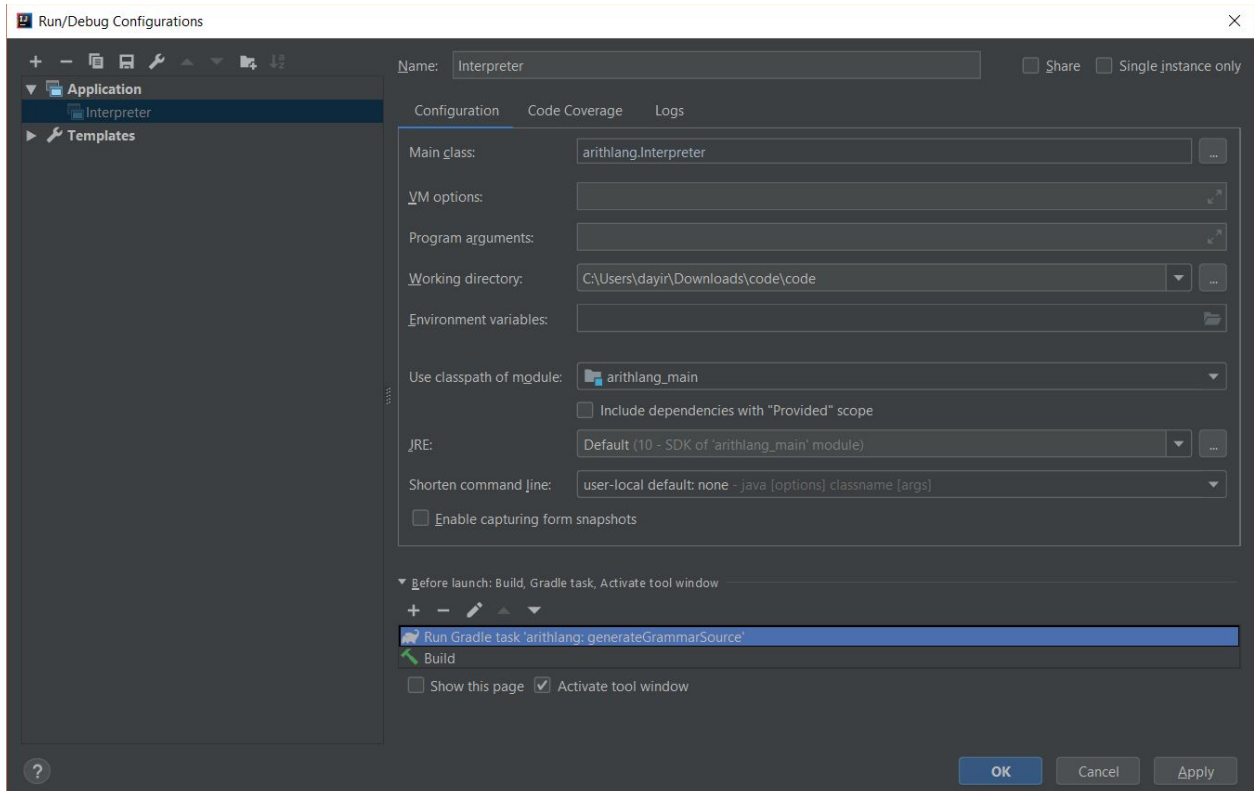
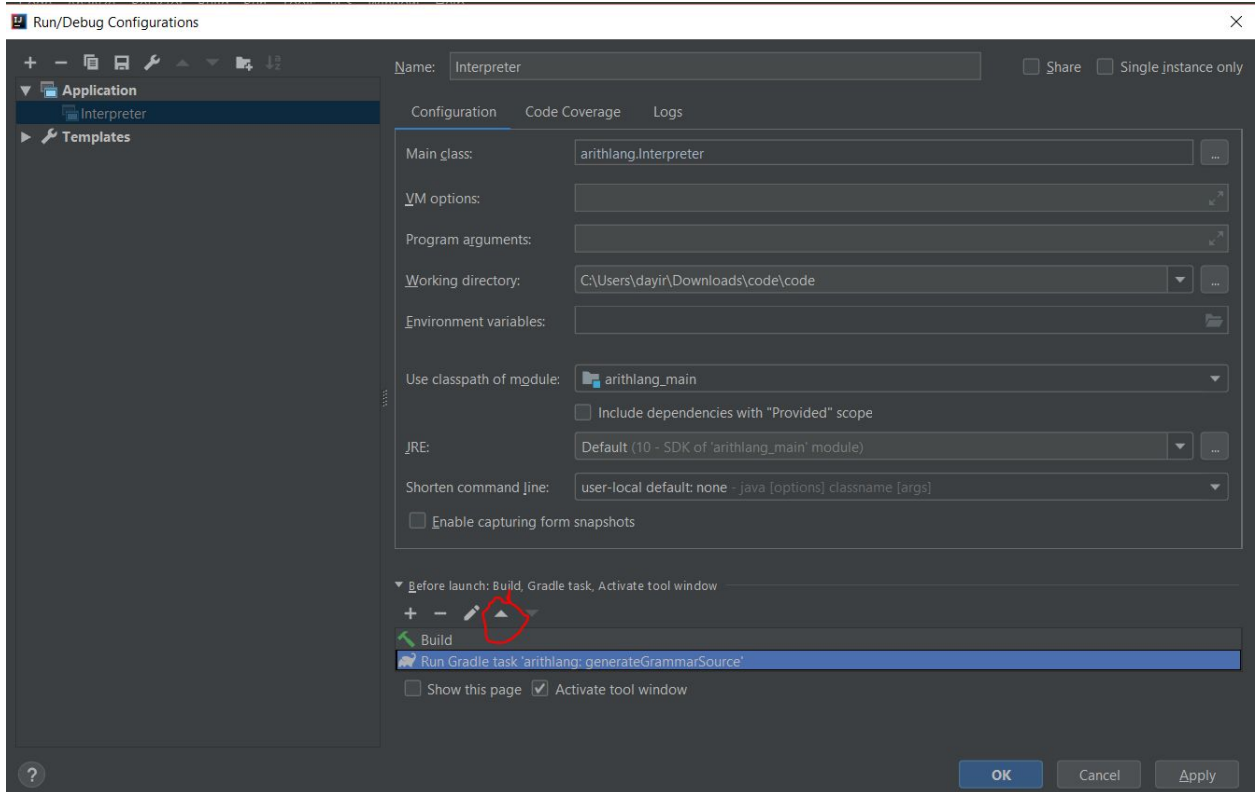
14. Click on the folder next to Gradle Project and select :arithlang



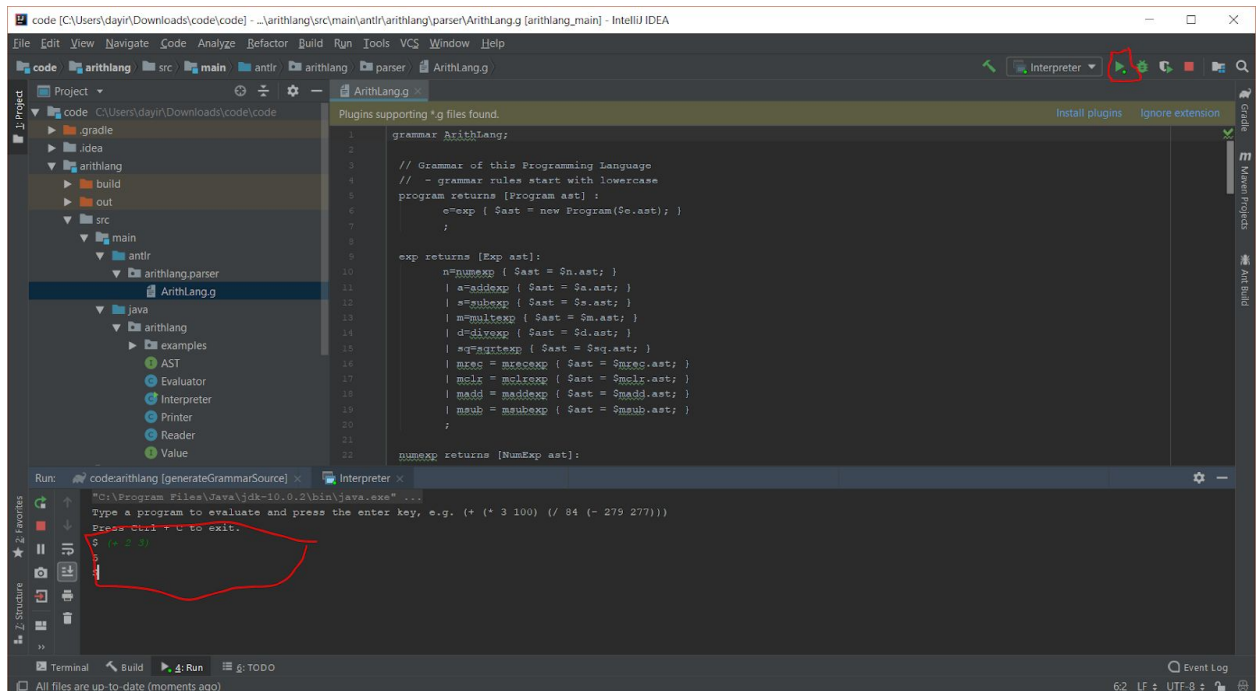
15. In Tasks write generateGrammarSource and click OK



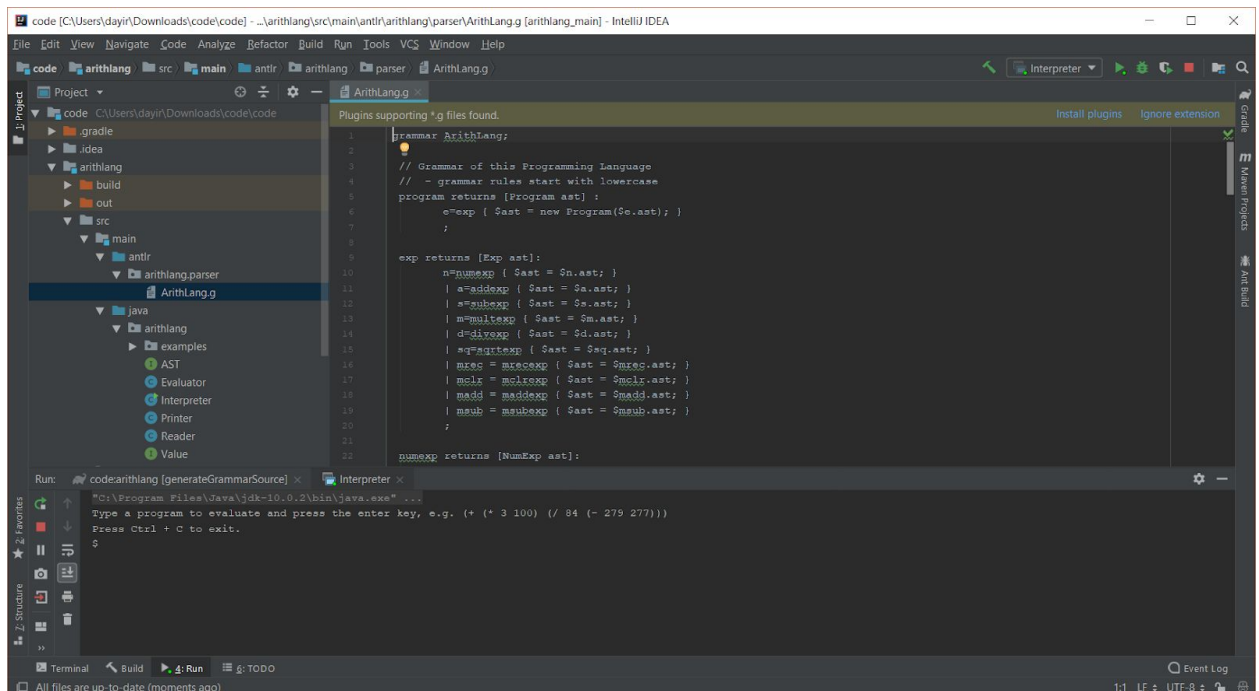
16. Be sure to move the generateGrammarSource task before the Build Task. Do that by selecting the task under "Before launch:" and put the task "Run Gradle task: arithlang:generateGrammarSource before "Build" by clicking the up button and click OK.



17. Then, you can run the interpreter by clicking the run button (see image). A console will be open on the bottom of IntelliJ Idea and you can follow the instructions it says.



18. To modify the current grammar, you can edit the file src -> main -> antlr -> arithlang.parser -> ArithLang.g



19. Once you modify this file, every time the Interpreter is run, the build system generate java files for the parser automatically.