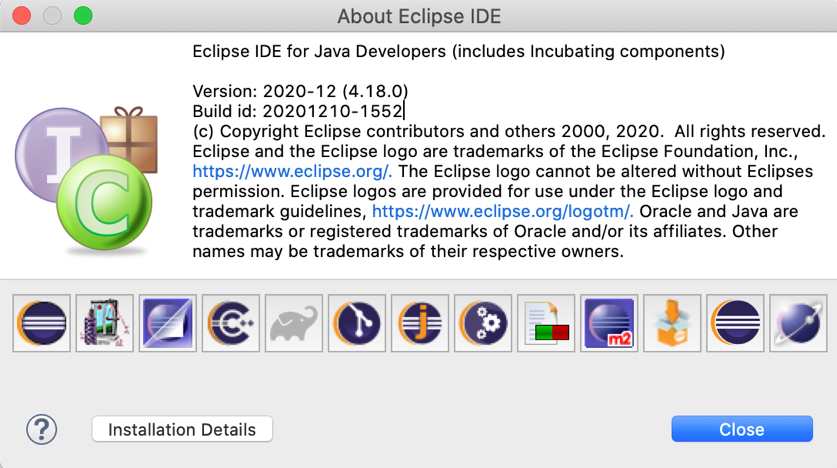
Object-Oriented Design and Implementation

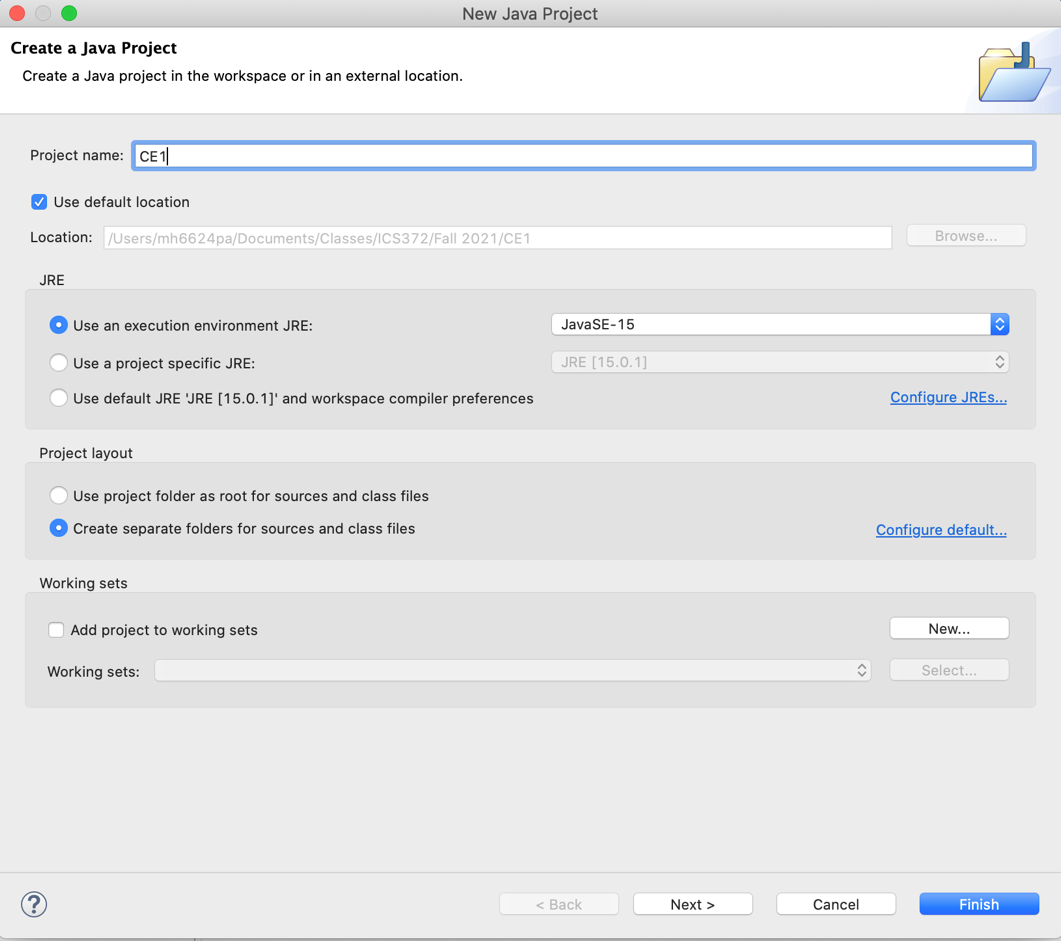
Class Exercise 1. Create a Modular Project in Eclipse on Mac

Warning: The steps are not perfectly aligned with the Windows version.

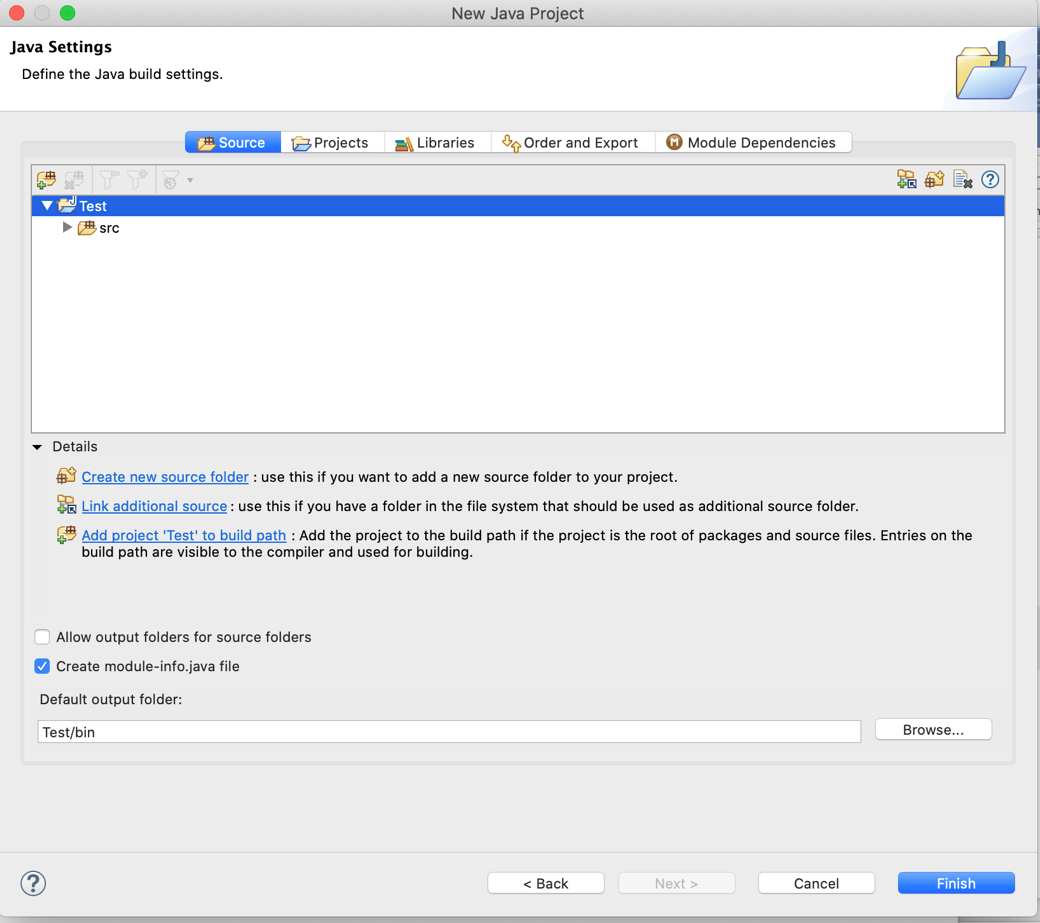
1. Start Eclipse. (Just to give you an idea, I am using the following version of Eclipse on Mac, but any recent version on Mac or Windows should be fine.)



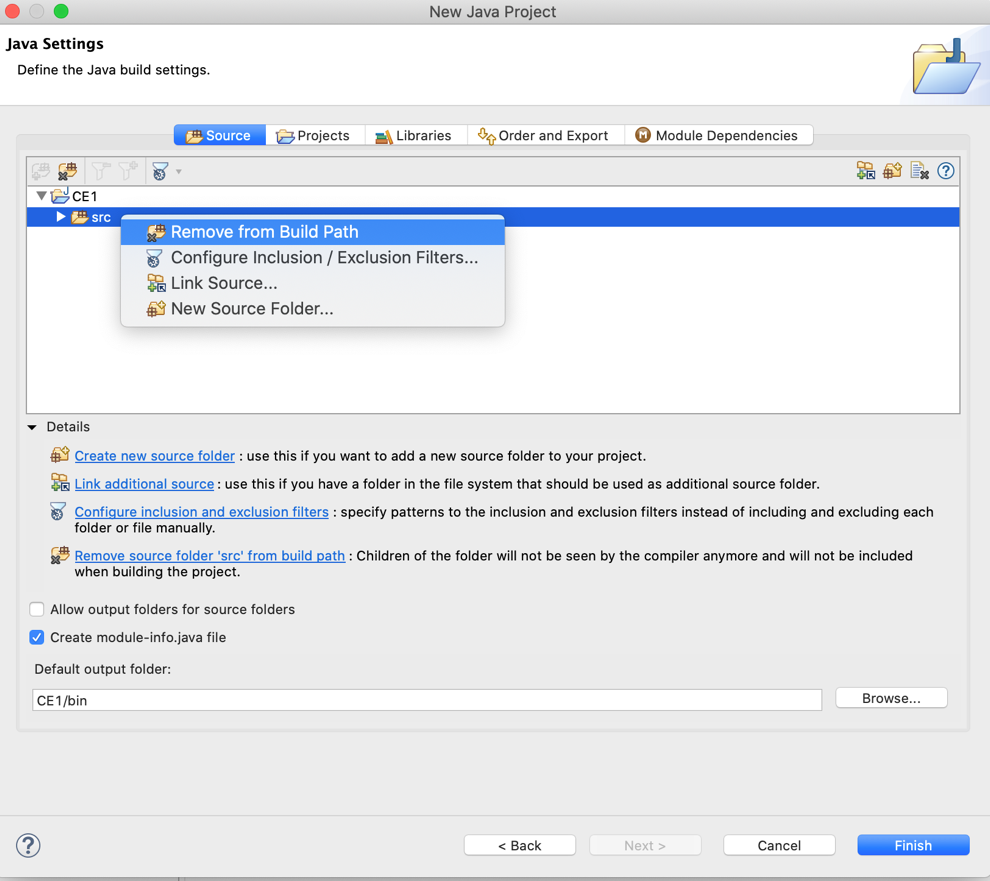
1. Select File, New, Java Project. Give a name for the project. Use CE1 in this exercise.



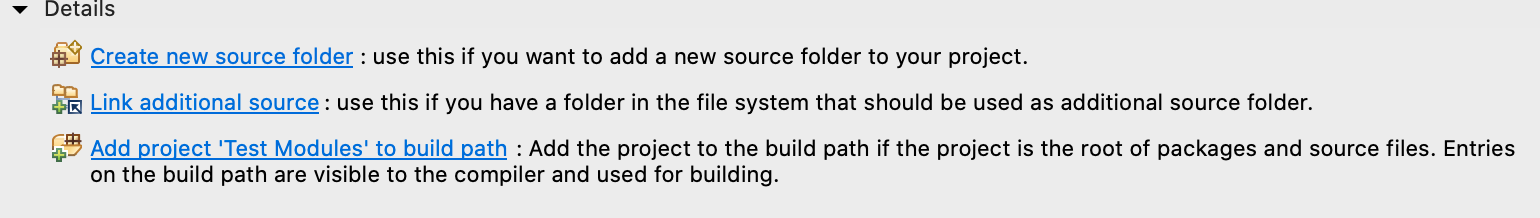
1. Click Next to get a window like below.



1. Right click on src and click on Remove from Build Path.



1. Click the link create new source folder.

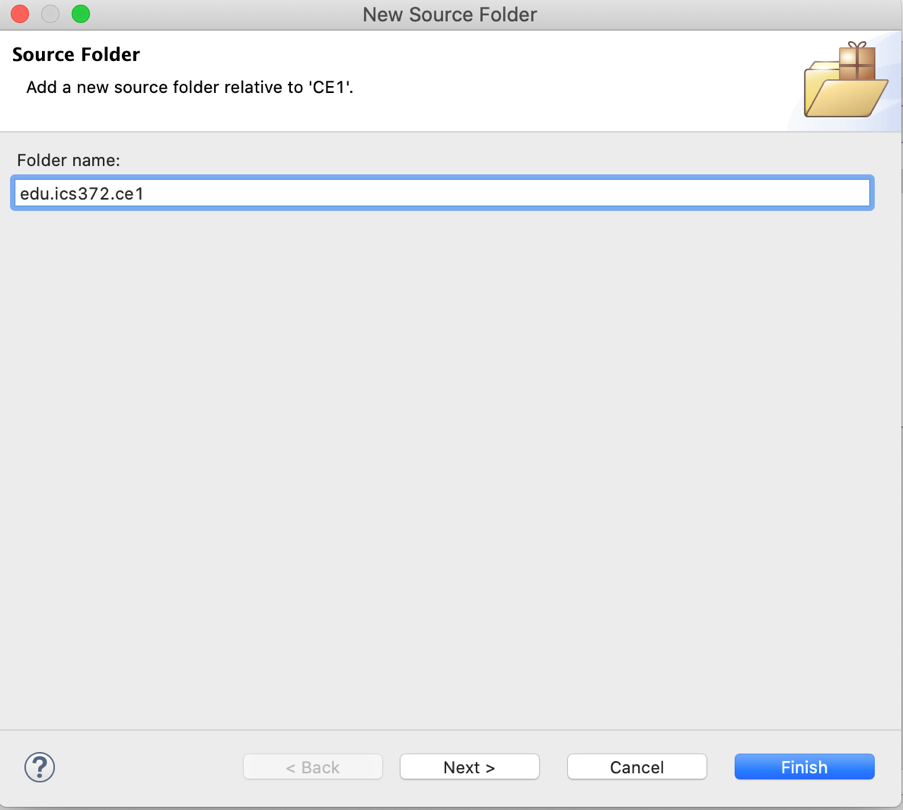


1. Before continuing, let us distinguish between the following:
2. A folder for storing the source files,
3. A folder for string the binary files,
4. The module name. and
5. The main package name.

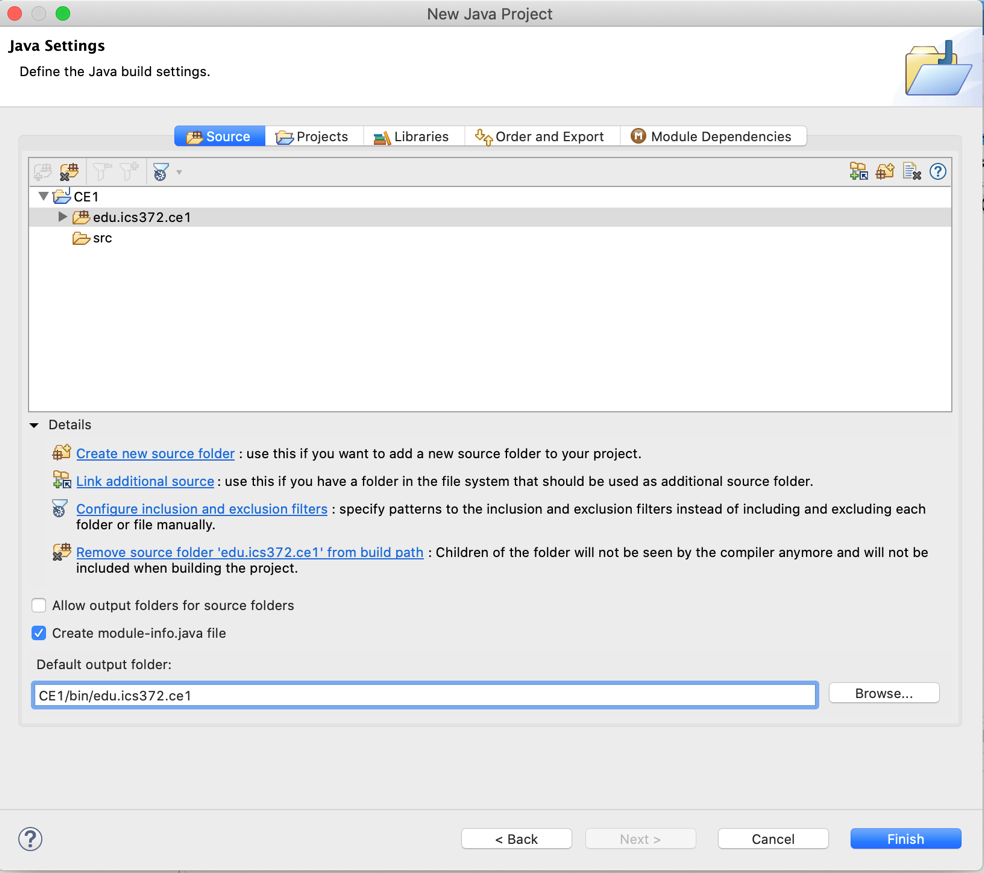
It is customary to use the reverse-domain name pattern for the module name. The “sub-folder” names (the last folder in the path name to source files/binary files) for (a) and (b) are the same. For example, we might have /user/user1/MyEclipseProjects/Project1/edu.ics372.ce1 storing the source files and /user/user1/MyEclipseProjects/Project1/bin/edu.ics372.ce1storing the class files. The module name and main package name are also named similarly.

In this example, all entities (a)-(d), we will use the module name edu.ics372.ce1.

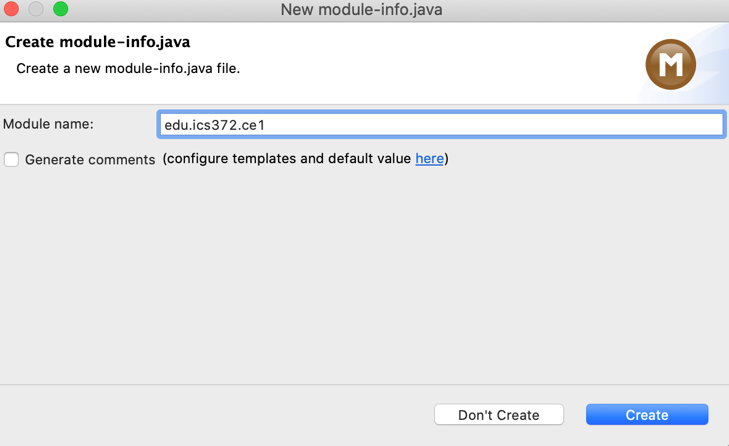
1. Eclipse now shows a dialog to enter the source folder name. Type in edu.ics372.ce1 and click Finish.



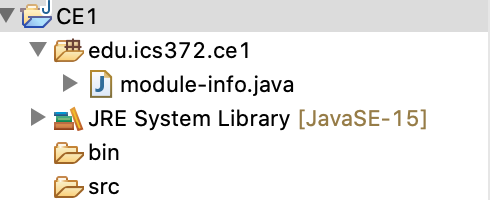
1. This brings back the window from Step 3. You will see the source folder appear in this window. Add the name edu.ics372.ce1 so the class files will be stored in the folder CE1/bin/edu.ics372.ce1. Click Finish.



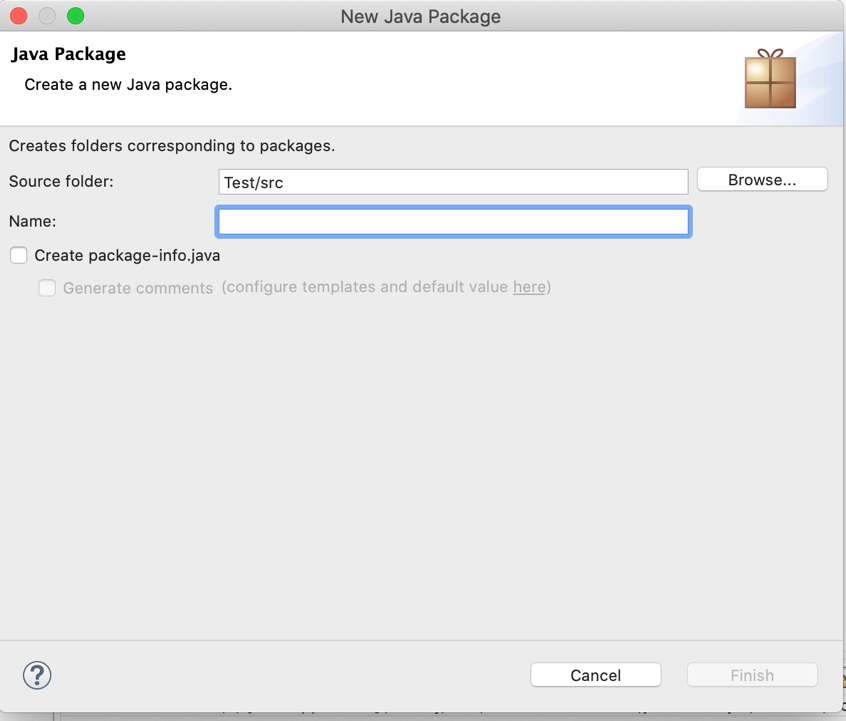
1. We are at the very last step of project creation. Eclipse asks for the module name. Enter it as edu.ics372.ce1. Click Create.



1. The package explorer view for the project should like as below.



1. Right click the edu.ics372.ce1 folder for the project CE1 and create a package named edu.ics372.ce1. (Remember, the convention is to create the main package with the same name as the module.) Click Finish.



1. Create a file named MyClass.java in the package edu.ics372.test. Type in the following code.

**package** edu.ics372.ce1;

**public** **class** MyClass {

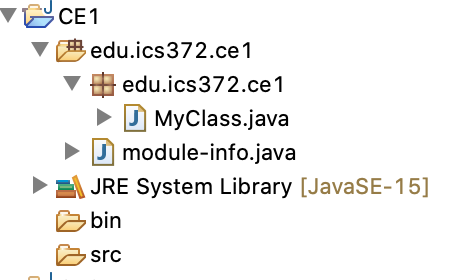
**public** **static** **void** main(String[] args) {

System.***out***.println("Hello, Modules");

}

}

1. The project structure looks as below.



1. Right click MyClass.java and make sure you are able to run the program,
2. We will now create an executable, so we can run the program without using an IDE. Create a text file named create and type in the following.

$(/usr/libexec/java\_home)/bin/jlink --module-path bin/edu.ics372.ce1/ --add-modules edu.ics372.ce1 --output ce1

1. Store the file in the Eclipse project folder CE1.
2. In a terminal window, navigate to the CE1 folder.
3. Execute the create file by typing in

sh create

1. If everything goes right, jlink should create a folder named ce1 under the CE1 project folder.
2. Execute the program by typing the following command in terminal. . (You must be in the CE1 project folder.)

ce1/bin/java -m edu.ics372.ce1/edu.ics372.ce1.MyClass