

Java & Eclipse Installation Guide

[ITP20003] Java Programming

Steps

- Installing JDK
 - Software development tools that allows to develop applications with Java Language.
- Environment Variable Settings
 - Settings for Java to run on system.
- Installing Eclipse
 - IDE which provides an integrated environment for developers to develop things easy.
- Hello World Example
 - Learn how to use Eclipse.

Installing JDK

- <https://www.oracle.com/java/technologies/downloads/>

Linux	macOS	Windows	
M1 or M2 chips			
Product/file description		File size	Download
ARM64 Compressed Archive		182.11 MB	https://download.oracle.com/java/21/latest/jdk-21_macos-aarch64_bin.tar.gz (sha256)
ARM64 DMG Installer		181.42 MB	https://download.oracle.com/java/21/latest/jdk-21_macos-aarch64_bin.dmg (sha256)
x64 Compressed Archive		184.35 MB	https://download.oracle.com/java/21/latest/jdk-21_macos-x64_bin.tar.gz (sha256)
x64 DMG Installer		183.67 MB	https://download.oracle.com/java/21/latest/jdk-21_macos-x64_bin.dmg (sha256)
Intel chips			

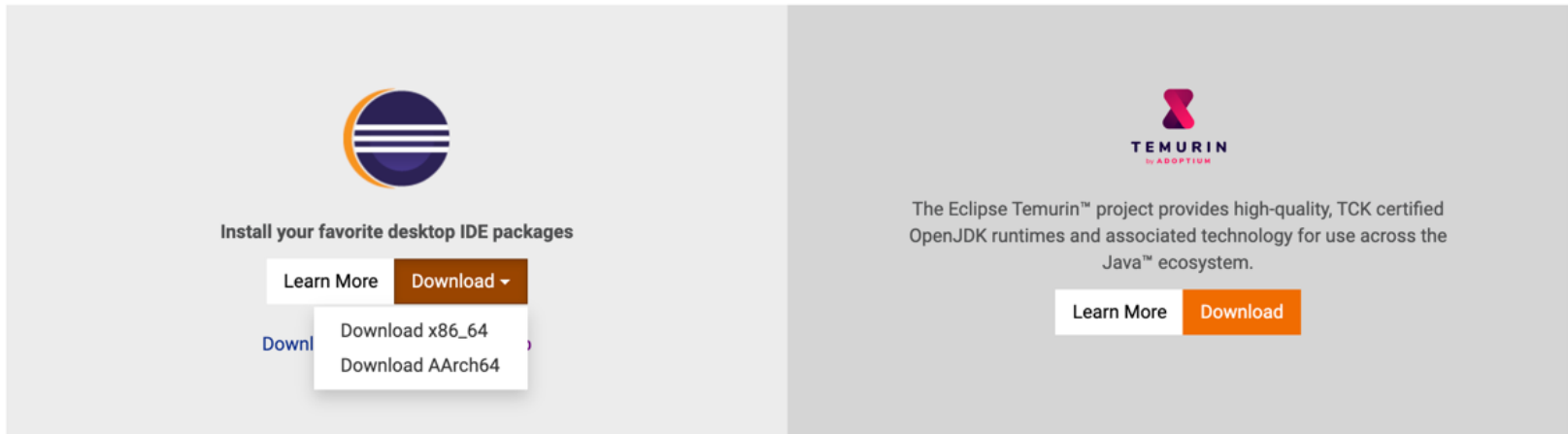
check

- `java -version`

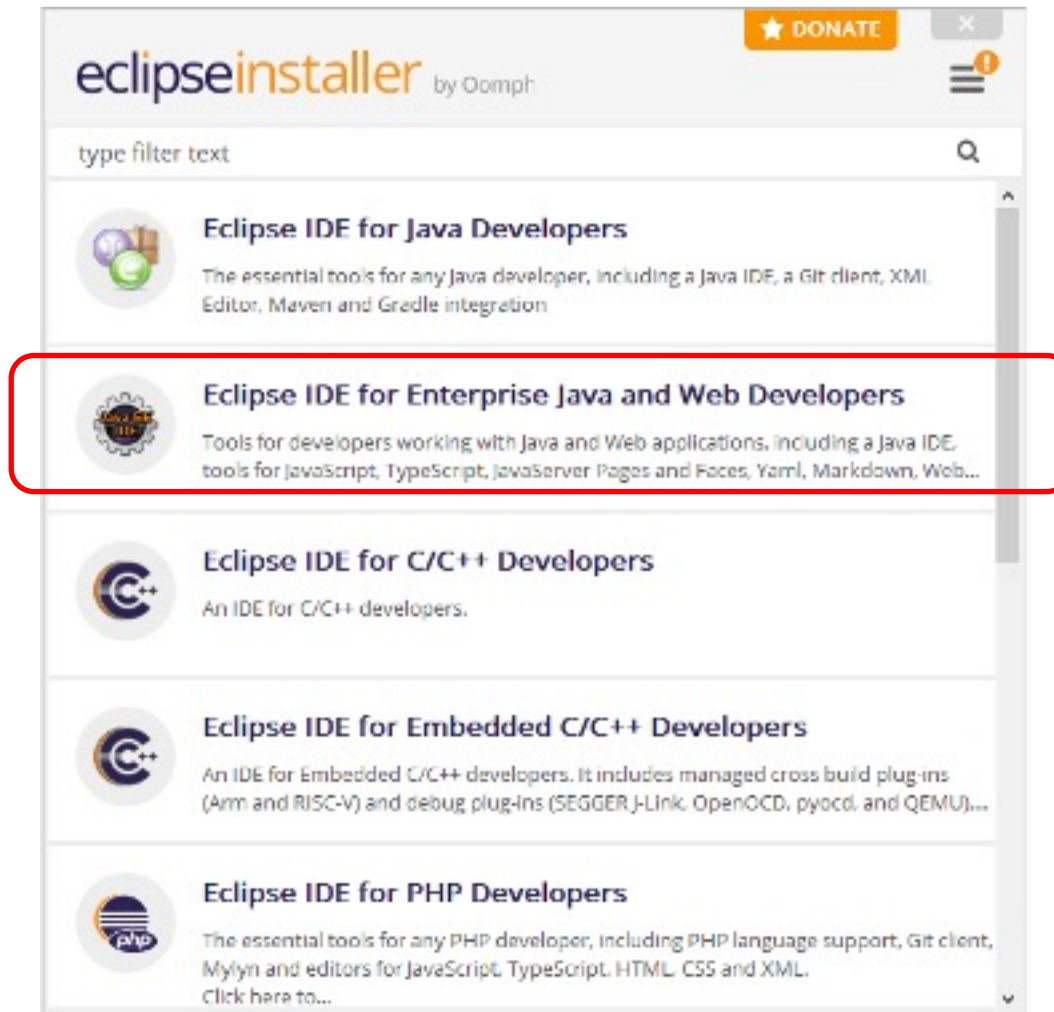
```
henry@Henry2023MacBookPro ~ % java -version
java version "21.0.2" 2024-01-16 LTS
Java(TM) SE Runtime Environment (build 21.0.2+13-LTS-58)
Java HotSpot(TM) 64-Bit Server VM (build 21.0.2+13-LTS-58, mixed mode, sharing)
henry@Henry2023MacBookPro ~ % javac -version
javac 21.0.2
henry@Henry2023MacBookPro ~ %
```

Installing Eclipse

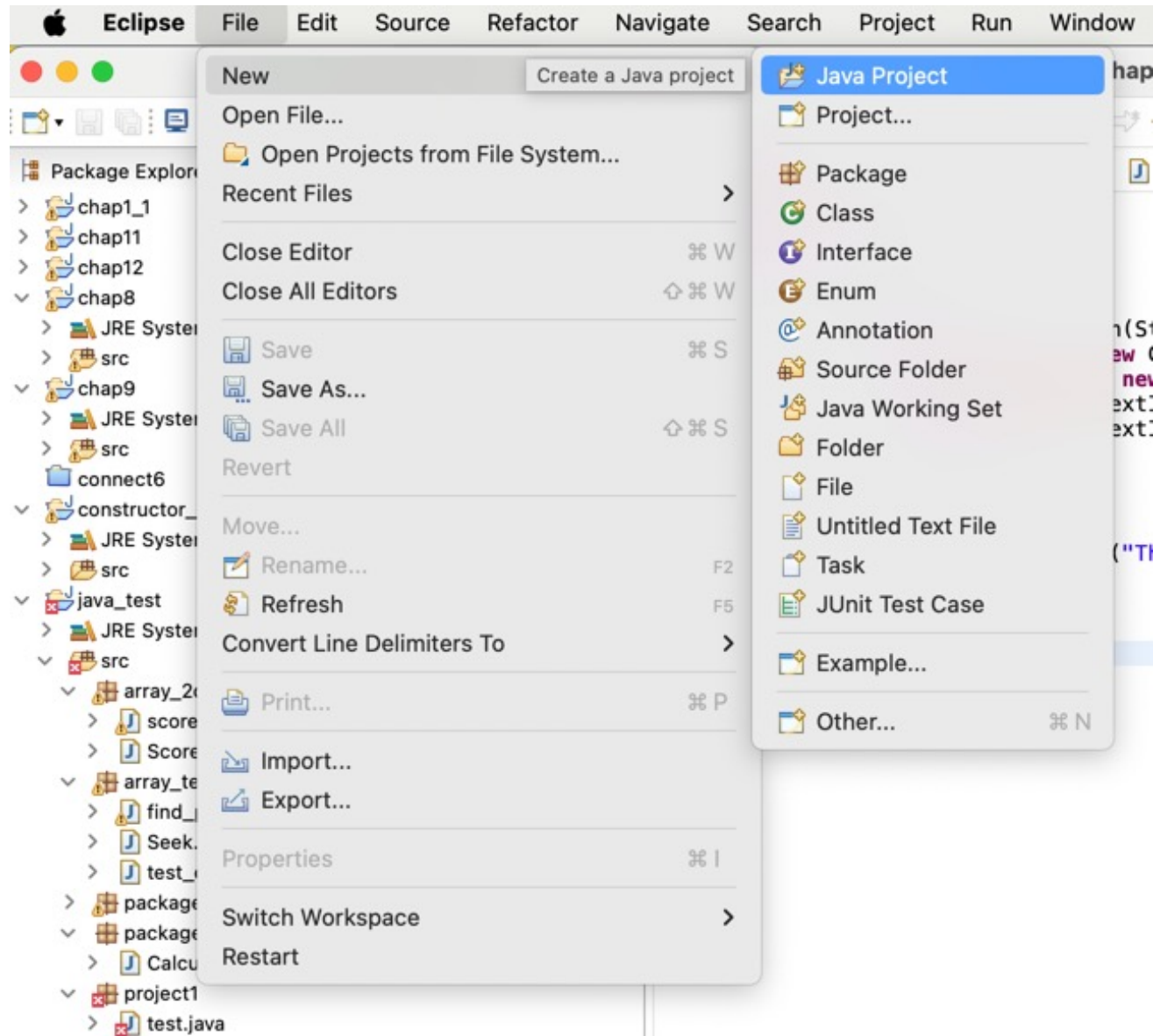
- <https://www.eclipse.org/downloads/>



Installing Eclipse



Hello World!



Hello World!

Create a Java Project

Discouraged module name. By convention, module names usually start with a lowercase letter

Project name:

☒ Use default location

Location: [Browse...](#)

JRE

☒ Use an execution environment JRE: [Configure JREs...](#)

☐ Use a project specific JRE:

☐ Use default JRE 'Java SE 21.0.2 [21.0.2]' and workspace compiler preferences

Project layout

☐ Use project folder as root for sources and class files

☒ Create separate folders for sources and class files [Configure default...](#)

Working sets

☐ Add project to working sets [New...](#)

Working sets: [Select...](#)

Module

☒ Create module-info.java file

Module name:

☒ Generate comments

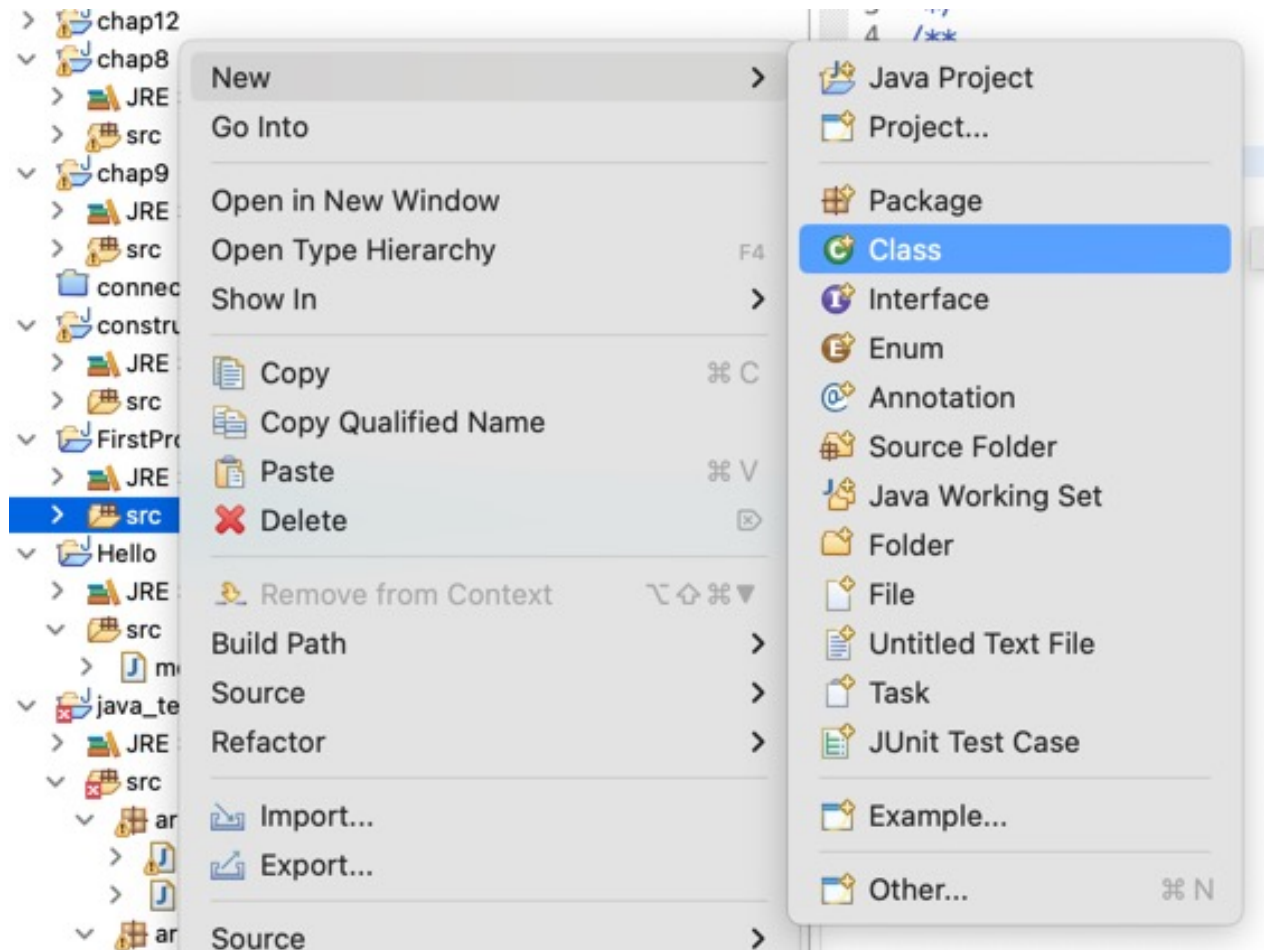
module name will be "FirstProject" (if no module is specified, then project name will be used as module name)

? The default compiler compliance level for the current workspace is 9. The new project will use a project specific compiler compliance level of 21. [Configure...](#)

[?< Back](#) [Next >](#) [Cancel](#) [Finish](#)

Hello World!

- src -> New -> class



Hello World!

- Class Name

New Java Class

Java Class

This package name is discouraged. By convention, package names usually start with a lowercase letter

Source folder:

Package:

☐ Enclosing type:

Name:

Modifiers:

☒ public ☐ package ☐ private ☐ protected

☐ abstract ☐ final ☐ static

☒ none ☐ sealed ☐ non-sealed ☐ final

Superclass:

Interfaces:

Which method stubs would you like to create?

☐ public static void main(String[] args)

☐ Constructors from superclass

☒ Inherited abstract methods

Do you want to add comments? (Configure templates and default value [here](#))

☐ Generate comments

Hello World!

- coding

A screenshot of a Java code editor window titled 'HelloHGU.java'. The code is written in Java and consists of eight lines. Line 1: `package FirstProject;`. Line 2: (empty). Line 3: `public class HelloHGU {`. Line 4: `public static void main(String[] args) {`. Line 5: (empty). Line 6: `System.out.println("Hello HGU!");`. Line 7: `}`. Line 8: `}`. The code is color-coded: keywords like 'package', 'public', 'class', 'static', 'void', and 'main' are in purple; the string "Hello HGU!" is in blue; and the variable 'args' is in black. The line numbers 1 through 8 are on the left side of the editor.

A screenshot of the bottom panel of an IDE. It shows several tabs: 'Problems', 'Javadoc', 'Declaration', 'Console', and another 'Console' tab. The 'Problems' tab is active, showing a message: '<terminated> HelloHGU (1) [Java Application] /Library/Java/JavaVirtualMachines/jdk-21.jdk/Contents, Hello HGU!'. The 'Hello HGU!' part is in bold black text.