SmartCliff
CAREER MOBILITY SOLUTIONS

SDE Readiness Training

Empowering Tomorrow's Innovators

Module I

Java Software Development: Effective Problem Solving

Software Installation

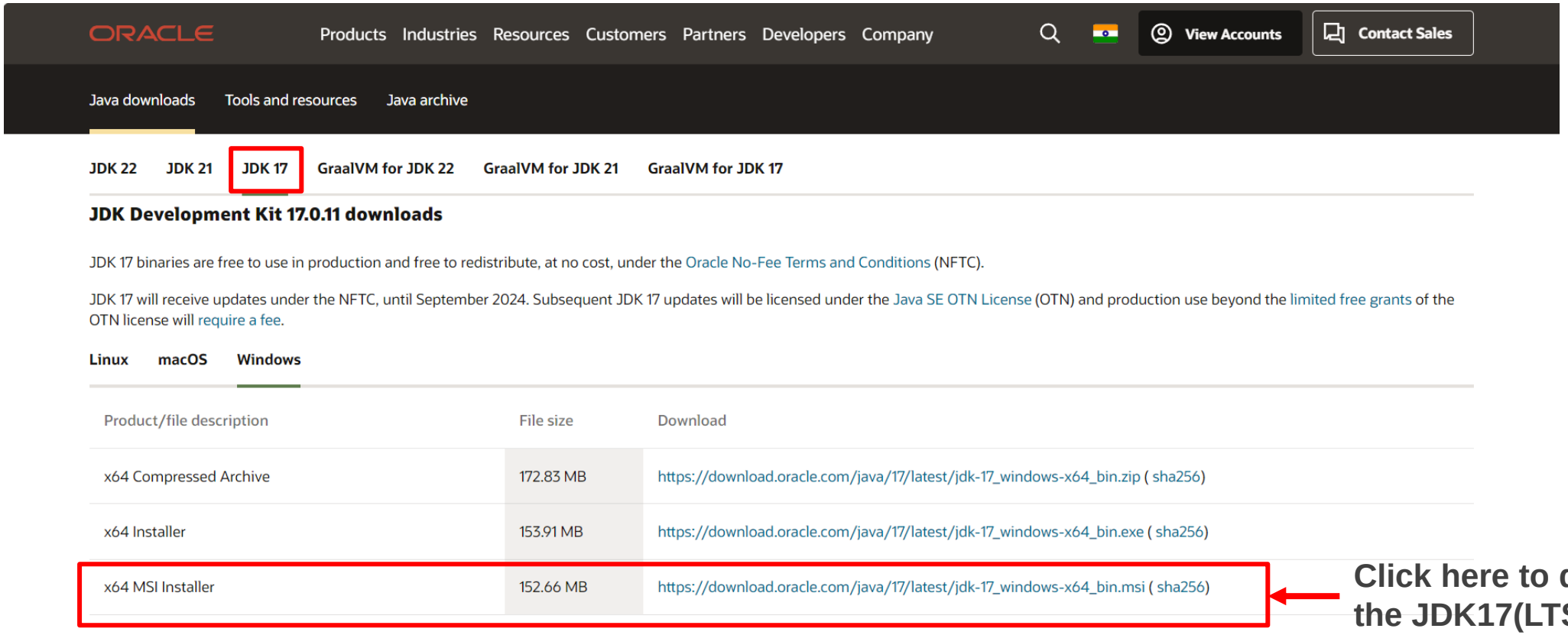
DATE: 12-02-2025

Environmental Setup

- To **run Java applications**, we need to prepare the **environmental setup**. For installing Java we need the following:
  - The Java Runtime Environment **(JRE)** (Includes Java Virtual Machine (JVM))
  - The Java Developer Kit **(JDK)** (Includes the Java Compiler)
  - A text editor
  - If JDK is installed, you automatically get the JRE

    It can be **downloaded** here: Java Downloads | Oracle India

Environmental Setup



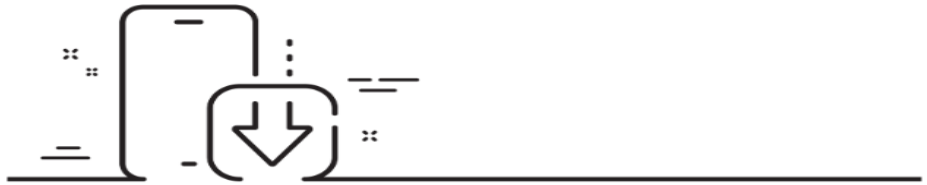
Click here to download the JDK17(LTS) version

Eclipse IDE

- Using a text editor is the basic way of creating a Java program, but there are tools available to make it easier to create Java programs called **IDEs** like **Eclipse**.
- **Eclipse** is a **third-party open-source IDE** that is very powerful and popular.
    - It can be downloaded here: http://www.eclipse.org/downloads/

Eclipse IDE

Eclipse download page



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The Eclipse Temurin™ project provides high-quality, TCK certified OpenJDK runtimes and associated technology for use across the Java™ ecosystem.

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Eclipse IDE

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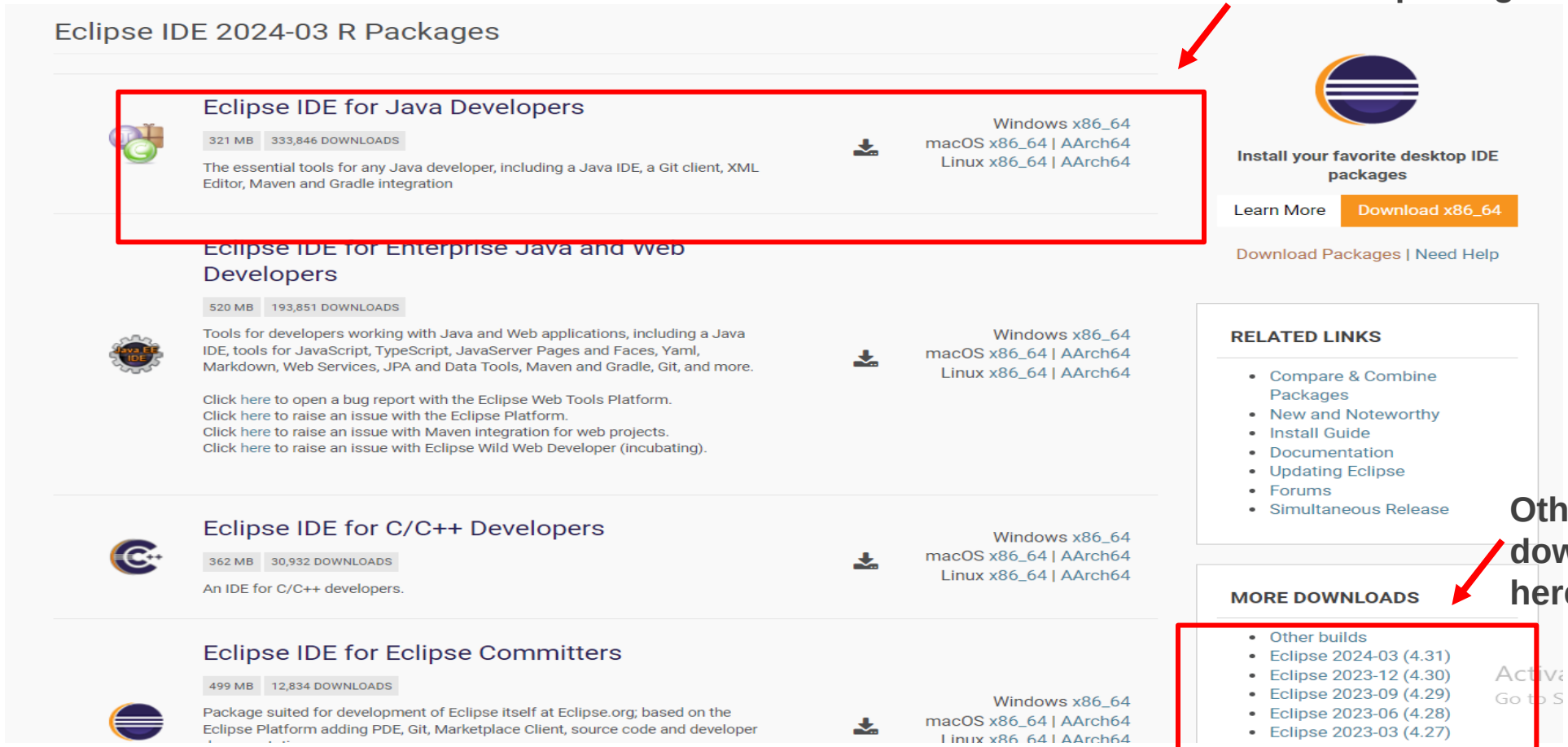
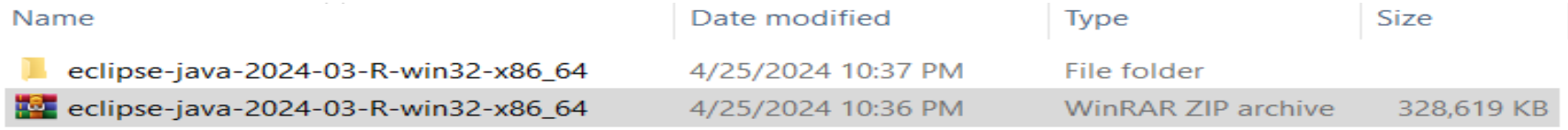
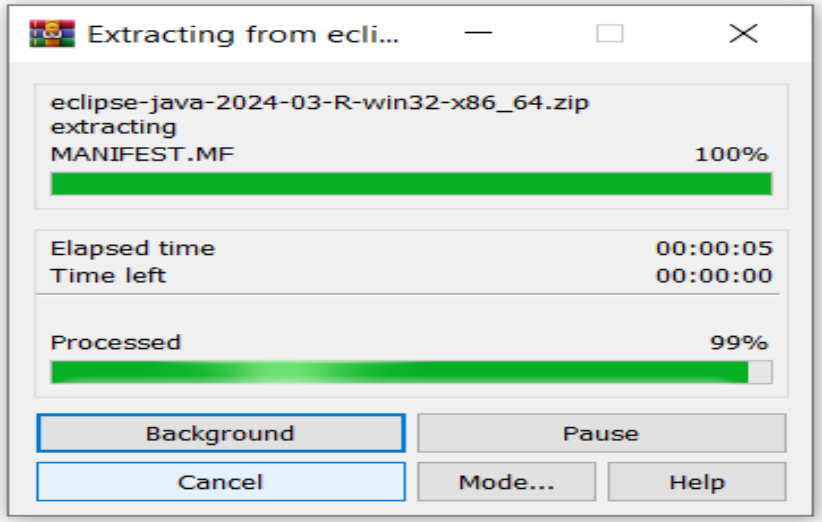


Other Versions to download from here

Eclipse IDE

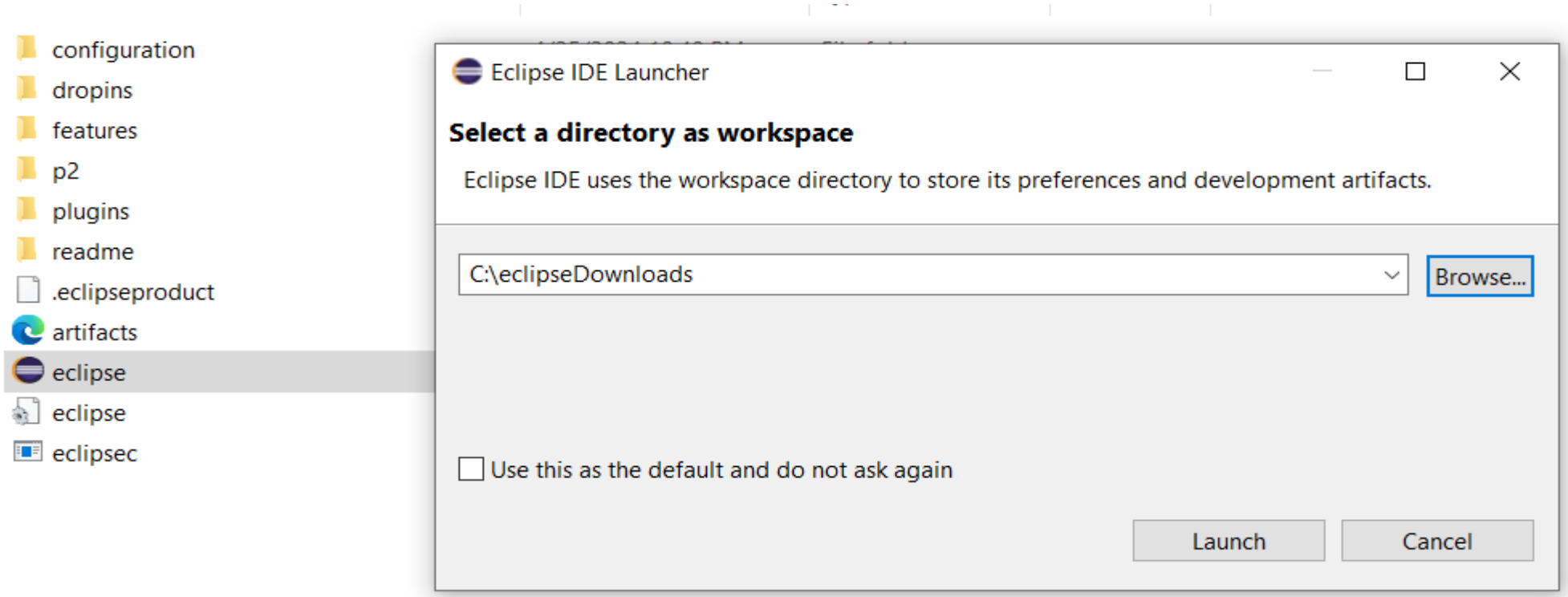
After download, right click and extract the eclipse file





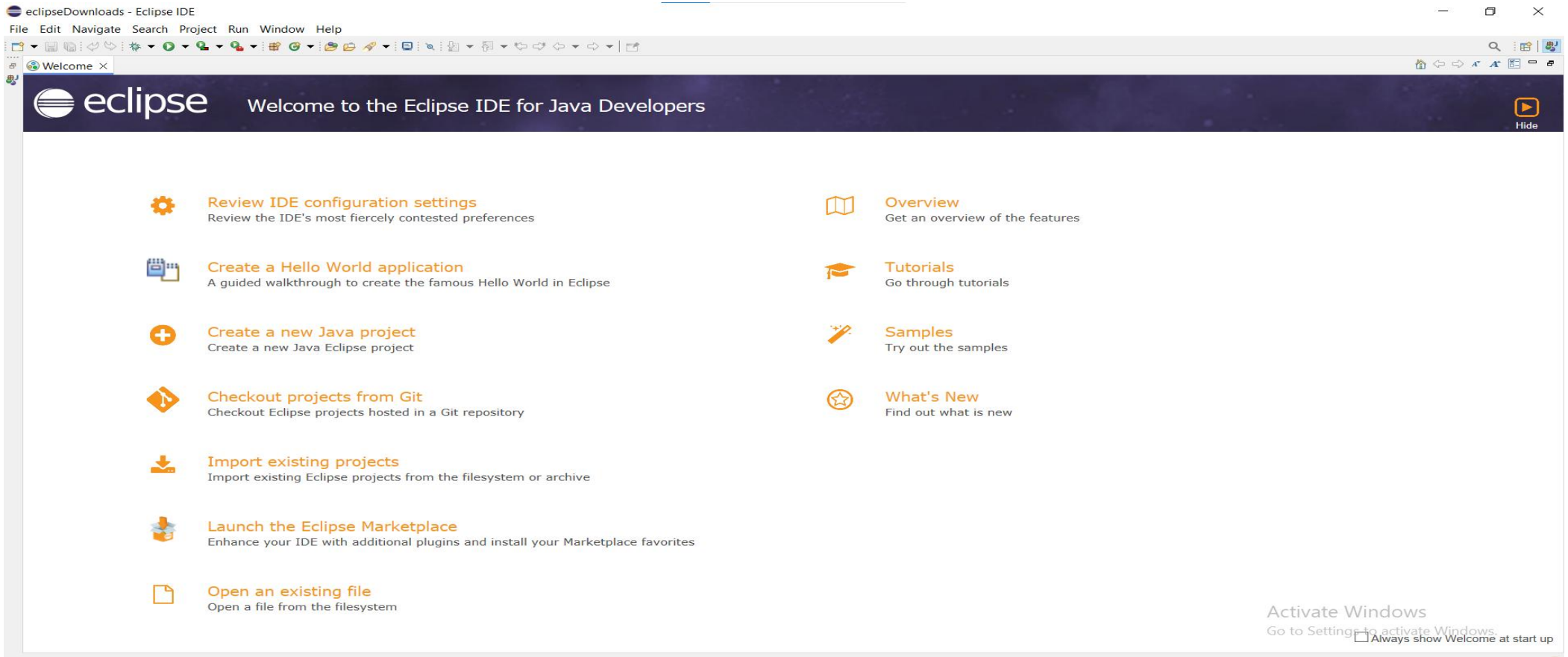
Eclipse IDE

Configuring Eclipse: Select a directory to create a workspace for projects



Eclipse IDE

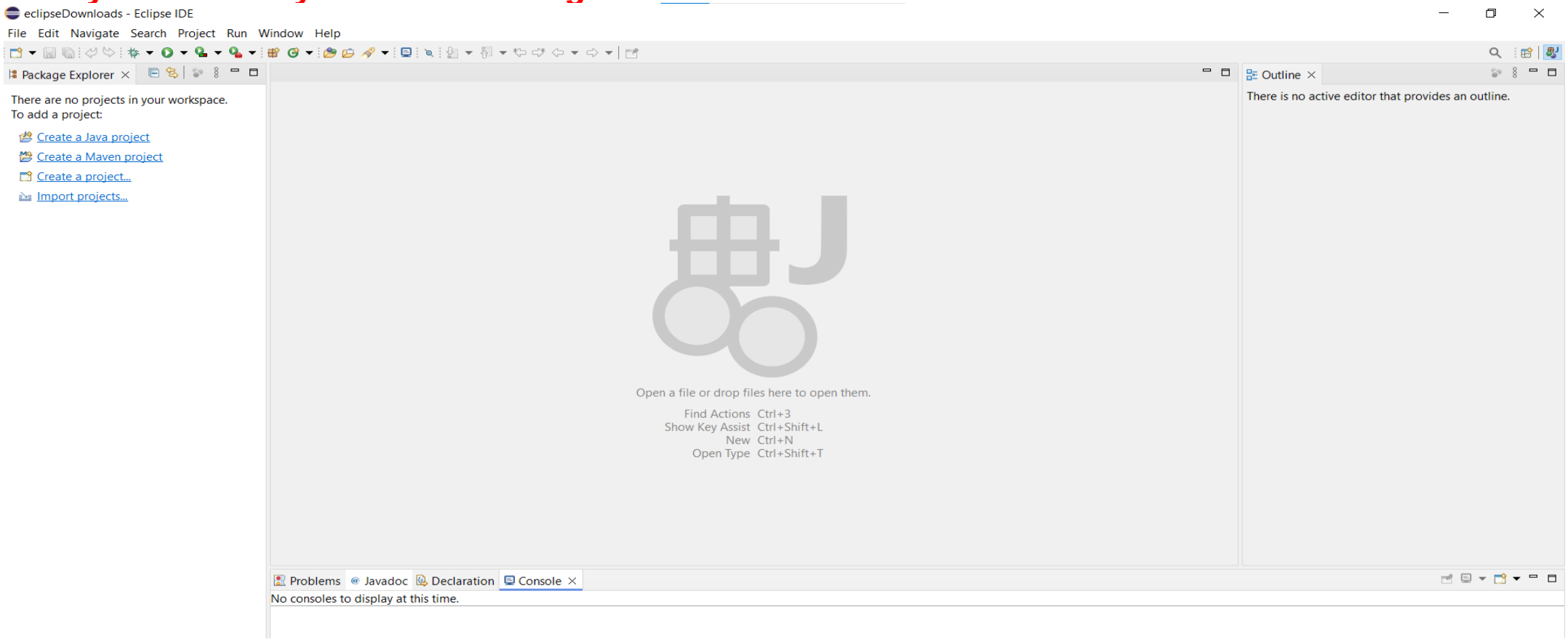
Once the workspace is chosen, you will get the welcome page



Eclipse IDE

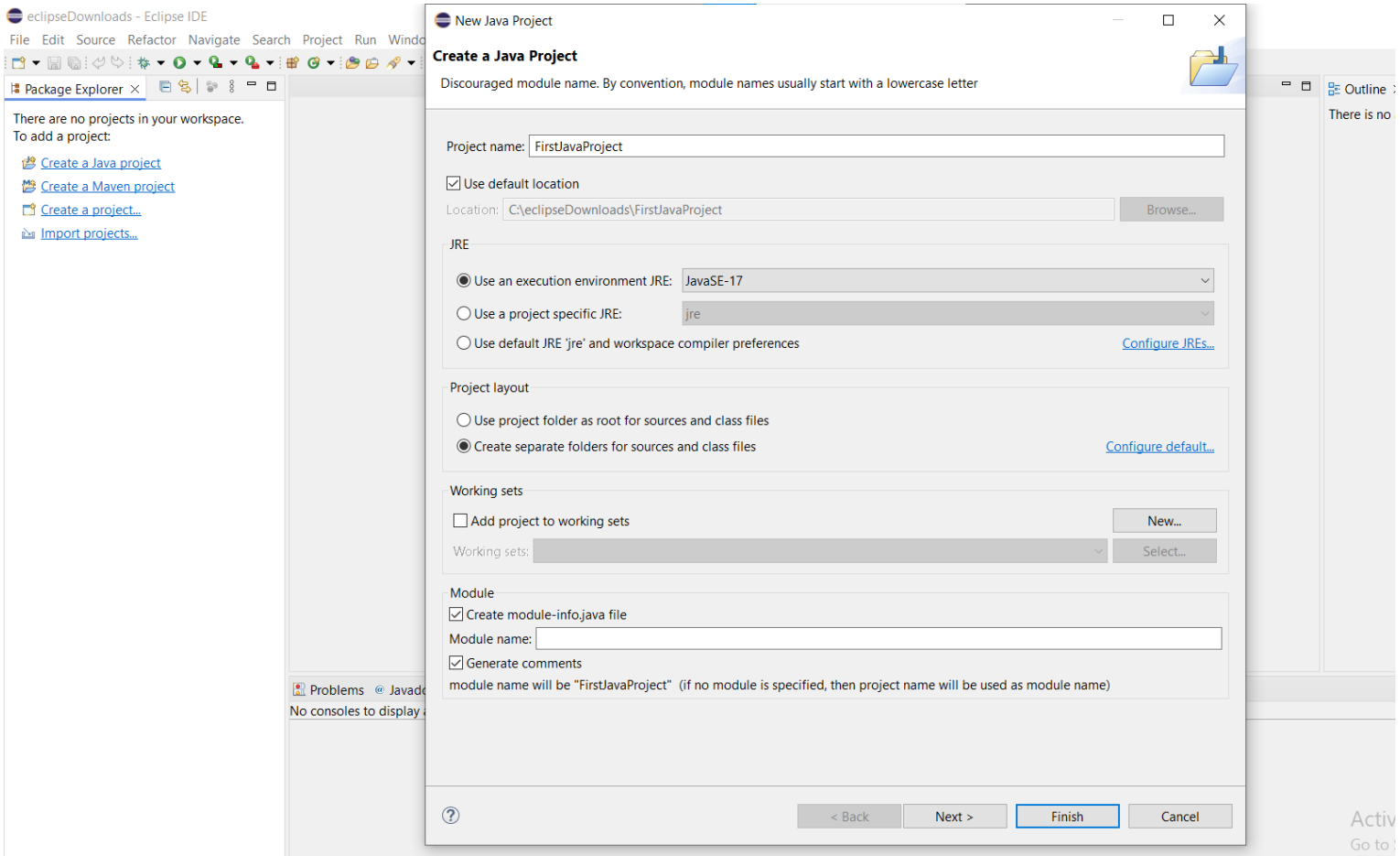
After closing the welcome screen ,the project explorer and other options will be shown up.

Now you are ready to start working.



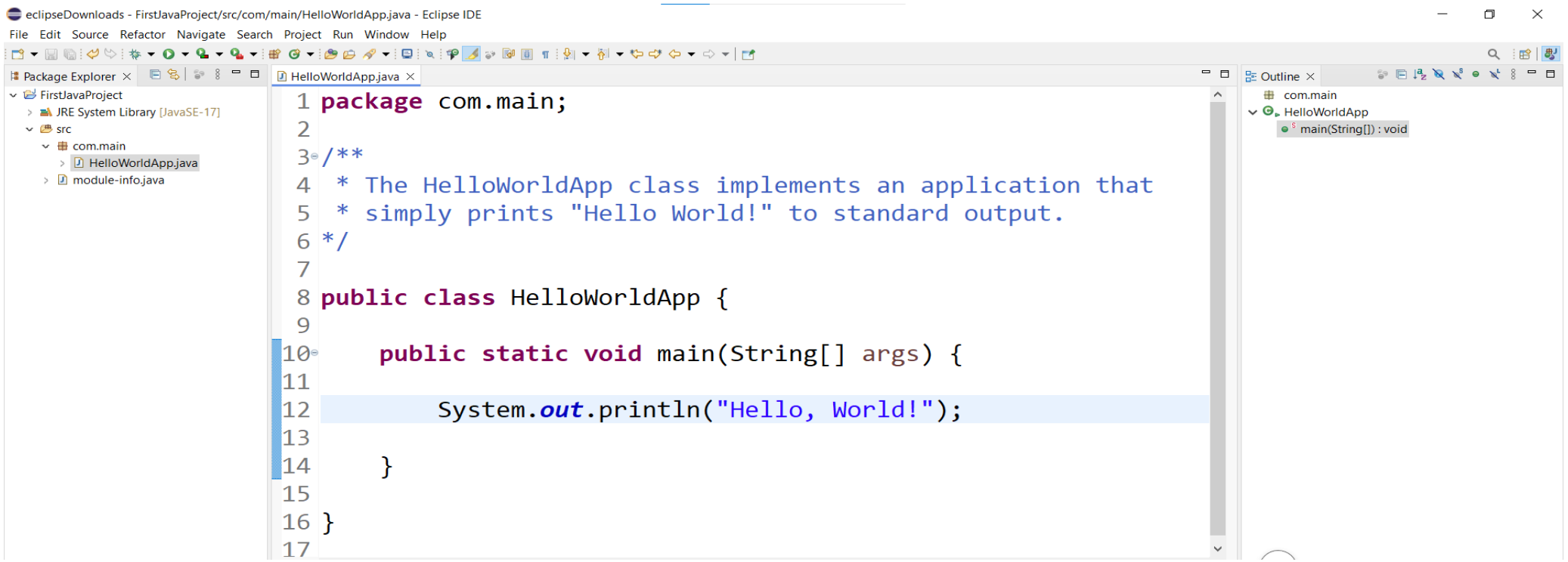
Eclipse IDE

Start working by creating the Java Project as FirstJavaProject



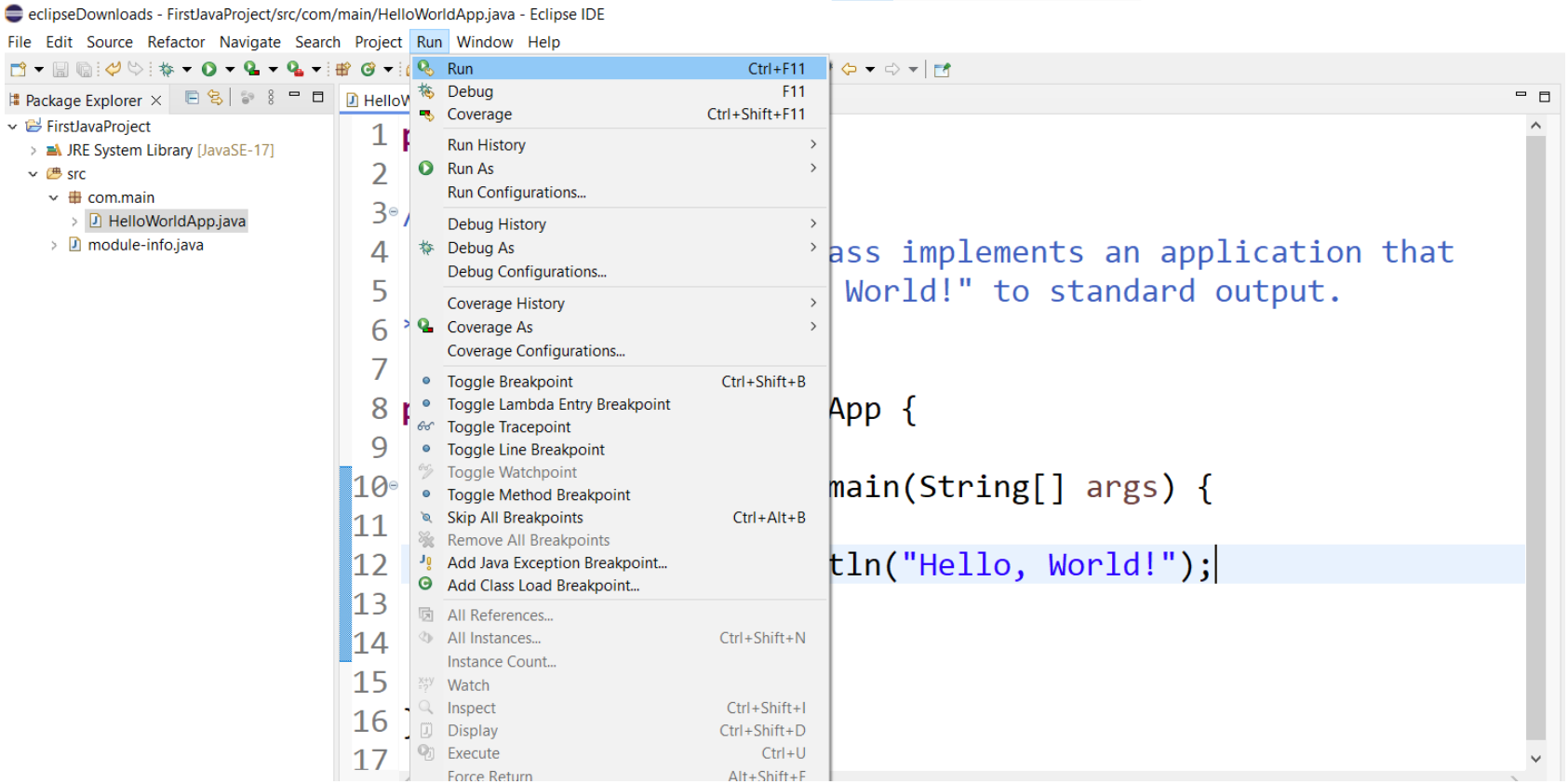
Eclipse IDE

Create First Java Program with file extension .java Example: HelloworldApp.java



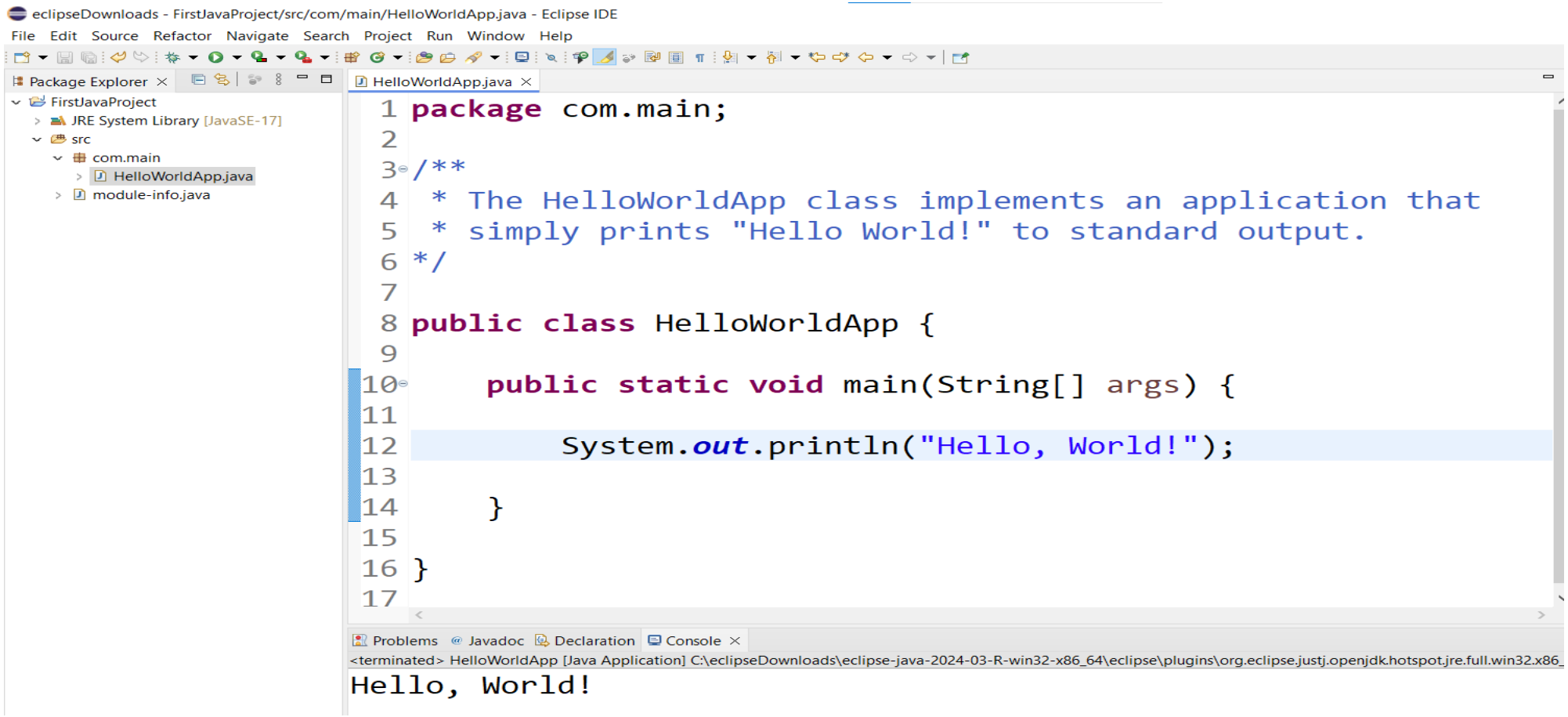
Eclipse IDE

After creating the application, run the application with a run command



Eclipse IDE

After execution, in the console, the output is displayed as Hello World!



First Java Program

```
/**
 * The HelloWorldApp class implements an application that
 * simply prints "Hello World!" to standard output.
*/
class HelloWorldApp {
    public static void main(String[] args){
        System.out.println("Hello World!"); // Display the Hello World!
    }
}
```

Success is the sum of all efforts, repeated day-in and day-out

- R. Collier

THANK YOU
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