



UNIVERSITY OF
CALGARY

CPSC 219 – Tutorial Session

Introduction to Java and Eclipse

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Who am I?

- My name is **Sepehr Sabour**
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About CPSC 233

- Learning Goals:
 - Object-oriented Programming (OOP)
 - Java Programming Language
 - ~~Team programming~~
- Activities:
 - Tutorials
 - Quizzes
 - Participation
 - Assignments (You need CPSC account)



What is Java

- Java is a general-purpose object-oriented programming language released on 1996.
- Java is Compiler based language
- Java codes run on the Java virtual machine (JVM)
- We need Java Development Kit (JDK) to develop java programs
- How to install:

https://java.com/en/download/help/download_options.xml



Eclipse IDE

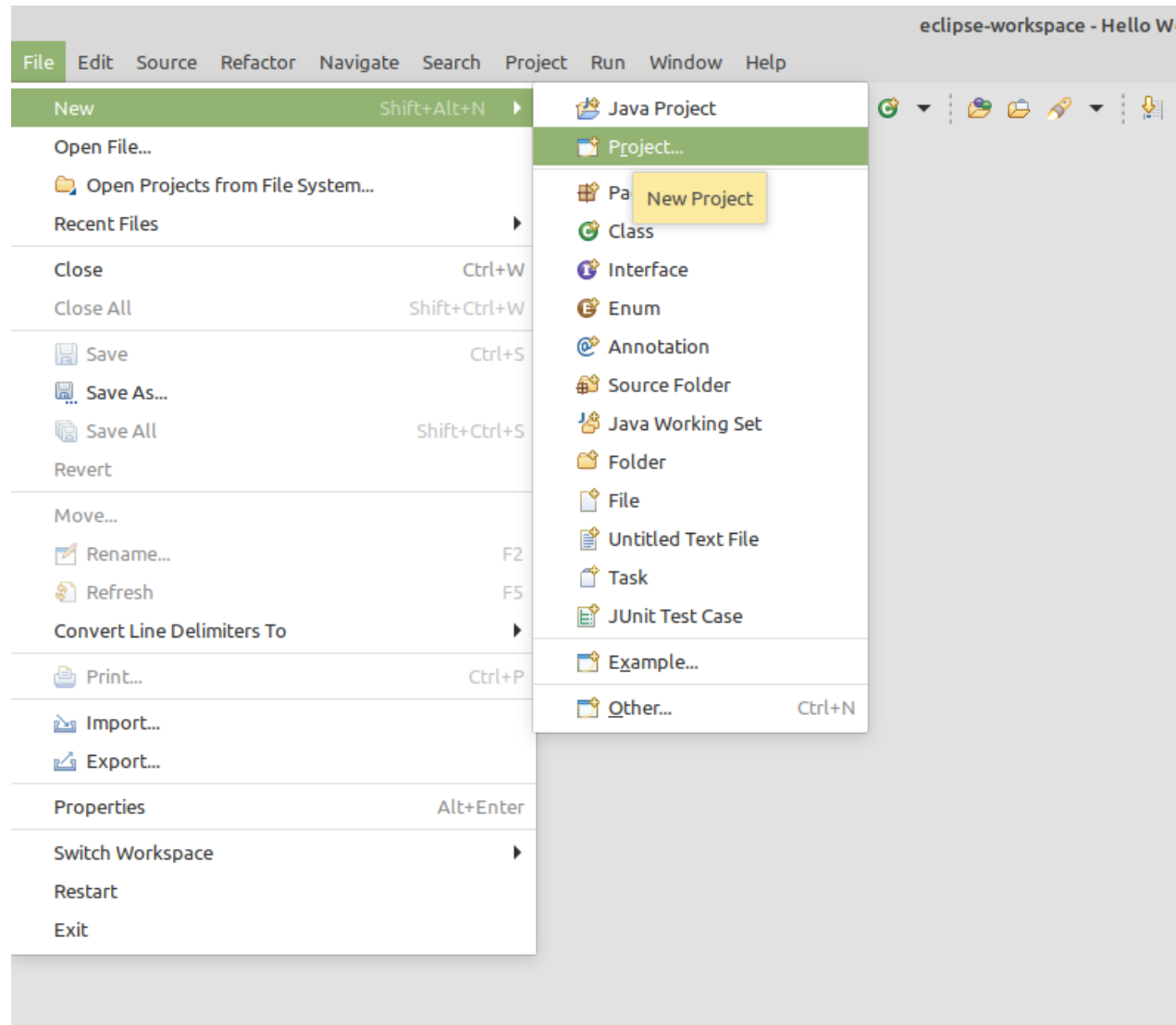
- Underlining of compile errors
- Syntax highlighting
- Code completion on typing
- Easy .jar exporting
- Managing files and packages

How to install Eclipse:

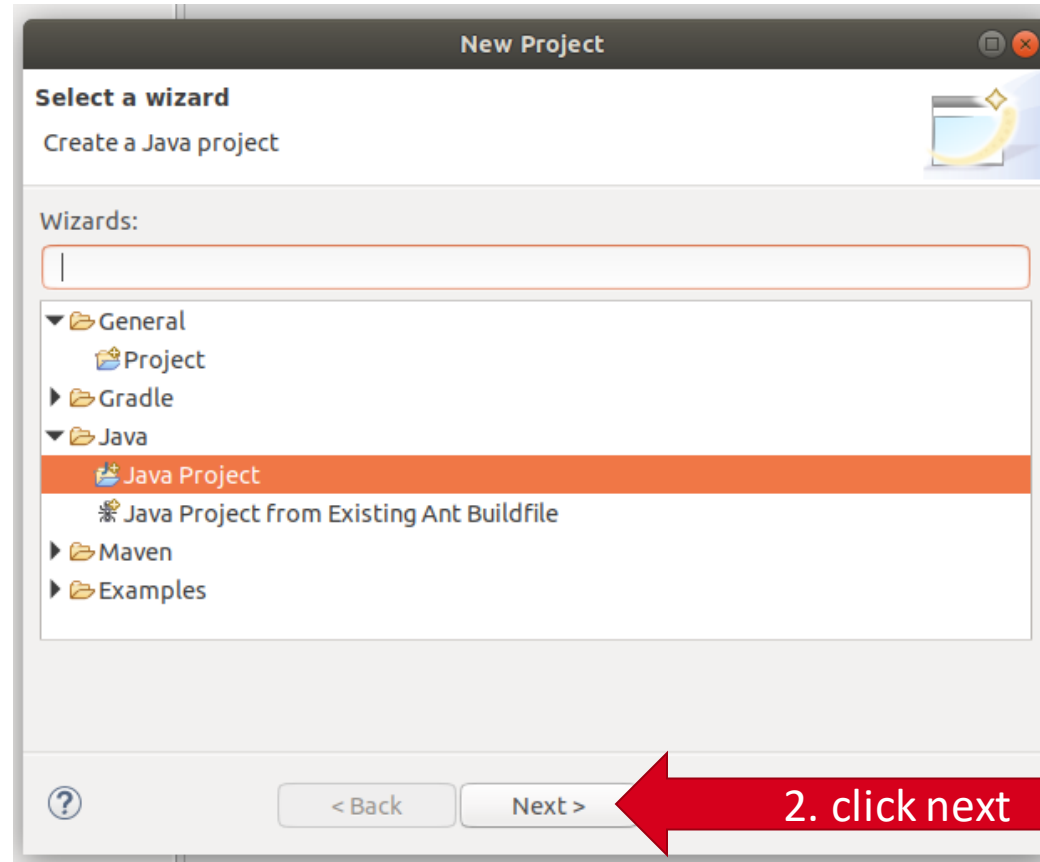
<https://www.eclipse.org/downloads/packages/installer>



Create a project in Eclipse



Create a project in Eclipse



1. Select Java Project

2. click next

New Java Project

Create a Java project in the workspace or in an external location.

Project name:

Use default location
Location: [Browse...](#)

JRE

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

Use a project specific JRE:

Use default JRE 'java-11-openjdk-amd64' 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...](#)

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

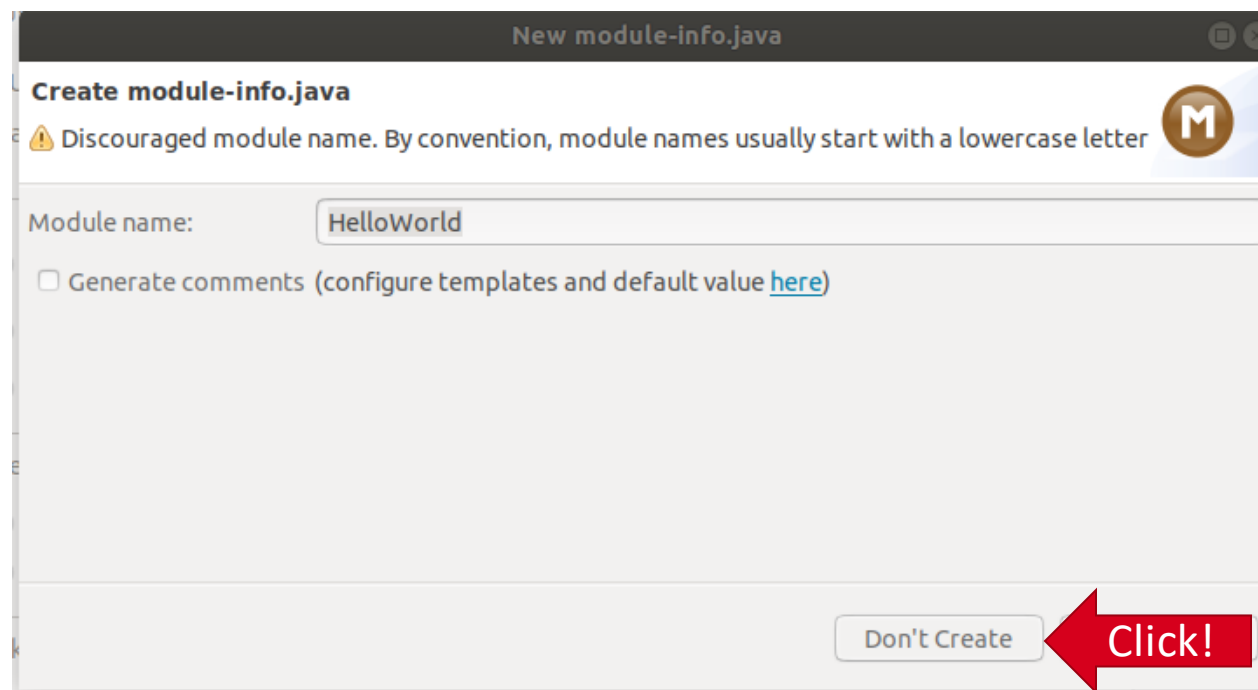
1. Enter the Project Name

2. Java Version

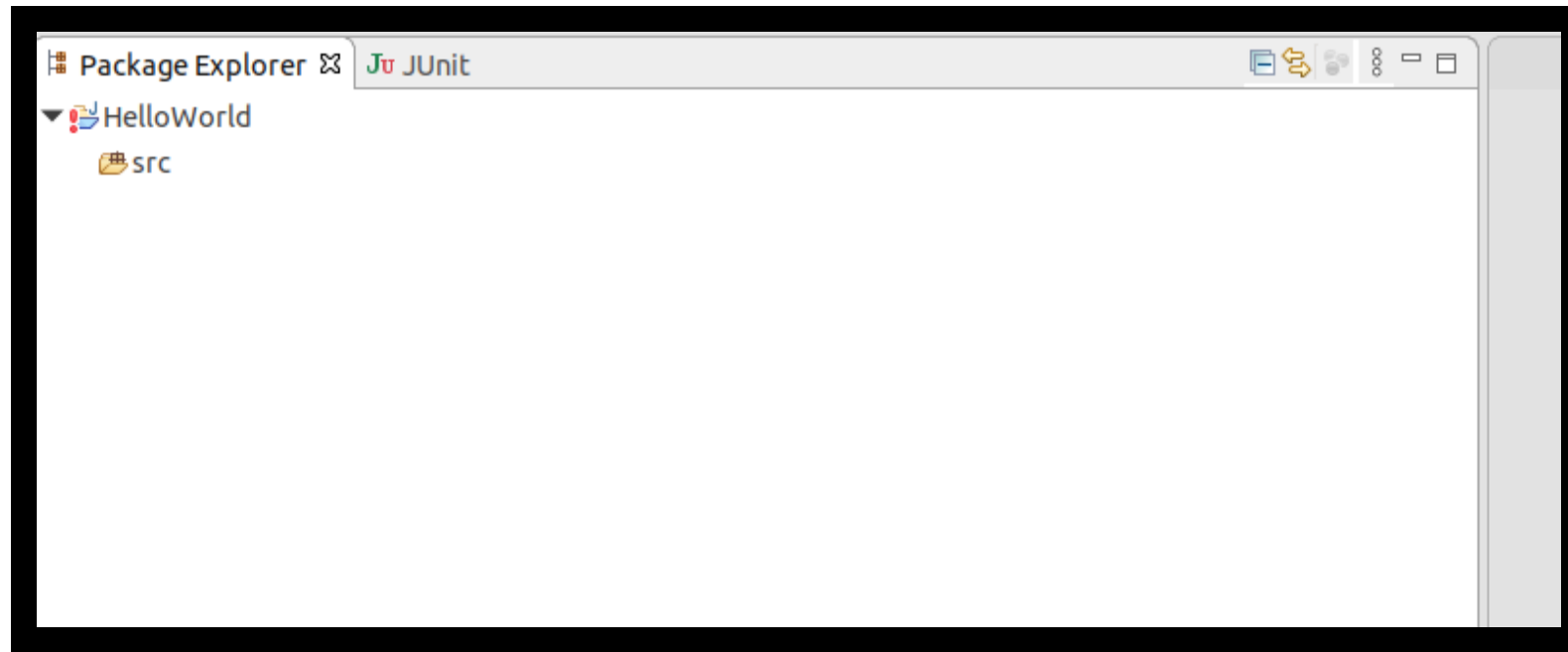
(Note: My java is a little bit old; you might see the newer version here!)

3. click!

You might see this window!

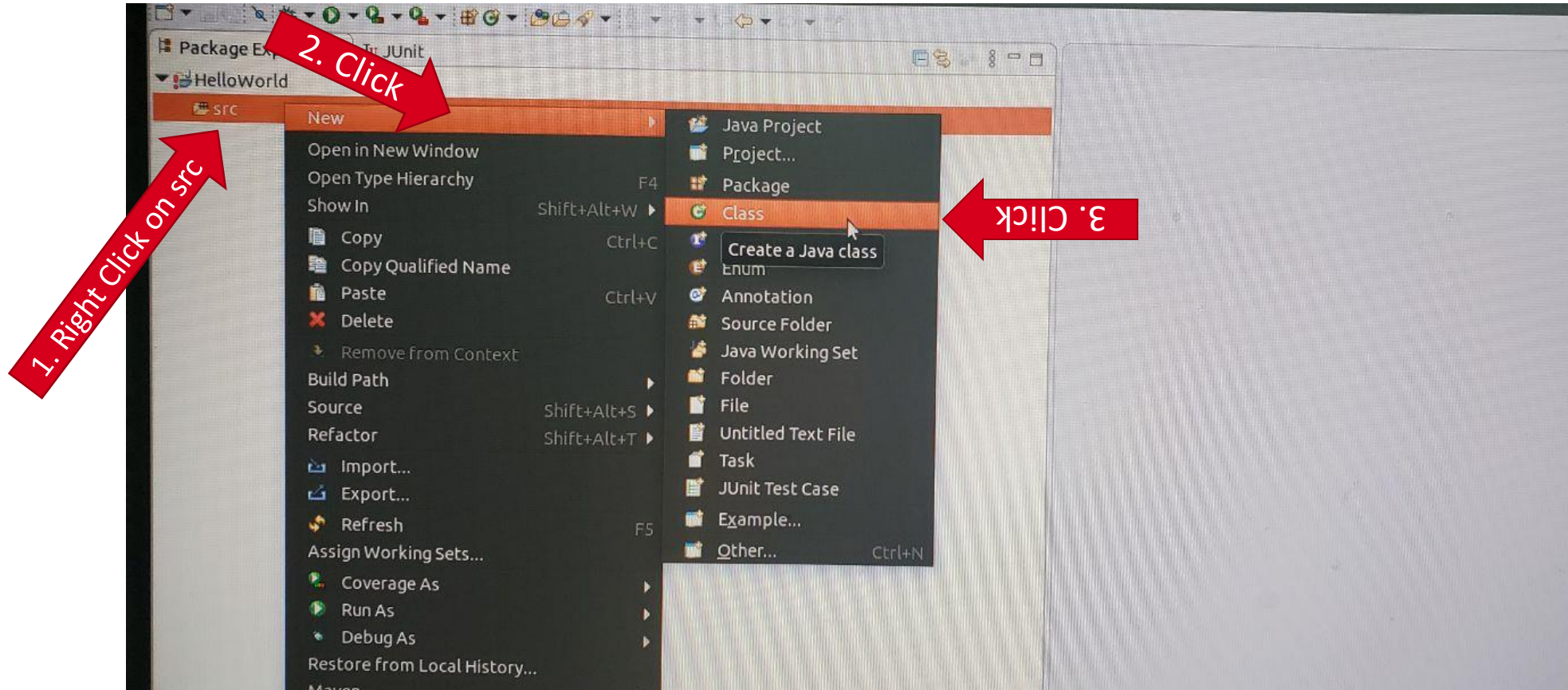


Now you can see the created project in the package Explorer






Create a new java Class



New Java Class

Java Class

 The use of the default package is discouraged.

Source folder: HelloWorld/src

Package: (default)

Enclosing type:

Name: ← **1. Enter the class name**

Modifiers: public package private protected
 abstract final static

Superclass:

Interfaces:

Which method stubs would you like to create?

public static void main(String[] args) ← **2. Check it!**
 Constructors from superclass
 Inherited abstract methods

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

Generate comments

← **3. Finish it!**

You only need to check this checkbox for the main class
(We will discuss it more later)

`System.out.println("Hello World!");`

```
Main.java  ✖
1
2 public class Main {
3
4 public static void main(String[] args) {
5     //Your Code!
6     System.out.println("Hello World!");
7
8
9 }
10
11 }
12
```

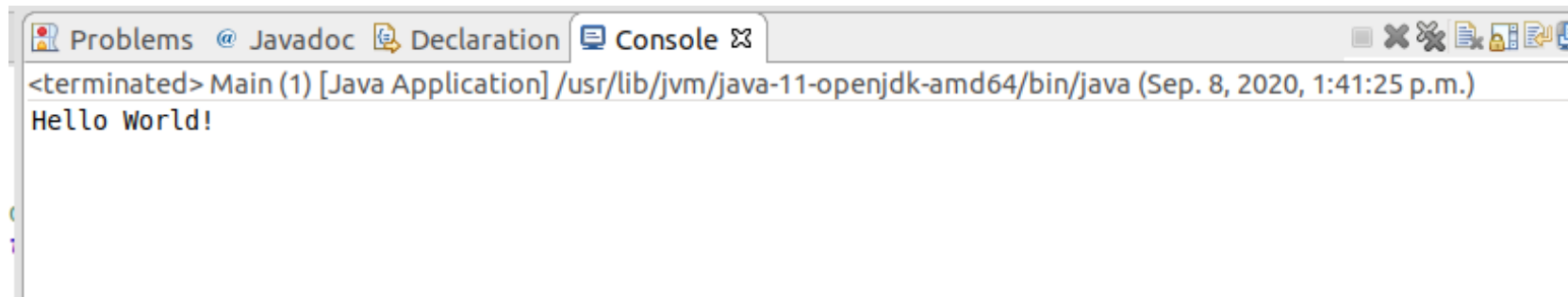
← This is the Java Main Class Skeleton

← Write the HelloWorld line here!

Run Your Code!



Congratulation! This is your first java program!



A screenshot of an IDE console window. The window title is "Console". The output text is:

```
<terminated> Main (1) [Java Application] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (Sep. 8, 2020, 1:41:25 p.m.)  
Hello World!
```


- Now please try it at home and let me know if you have any question

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Zoom Meeting: pesehr.youcanbook.me