

# Introduction

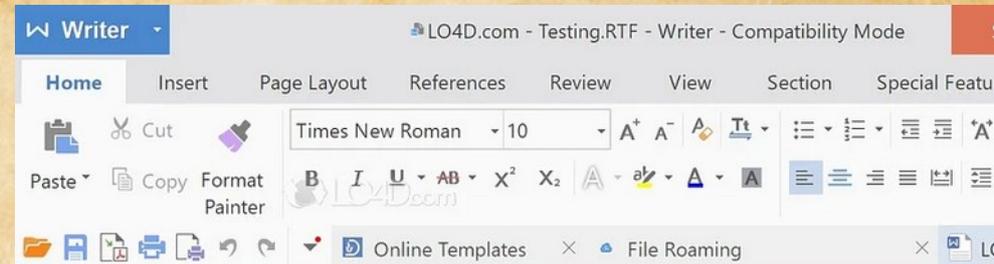
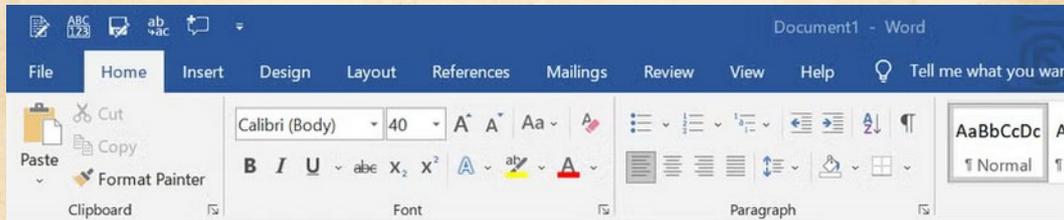
*Integrated Development Environment (IDE):  
Eclipse*

# Lecture Contents

- What is an IDE?
- Installing Eclipse

# What is an IDE?

- I expect you know what a **word processor** is...
  - Maybe you've used **Microsoft Word** or **WPS Writer**?
  - Word processors are used for making things look good to publish for human consumption.



1 < 3 Word

In a word: LO4D.com was created because of the rampant spread of virus- and malware on the largest download portals. 92% of the top 25 download directories do not scan those that do test attempt to infect your system with multiple toolbars, spyware, and other malware. LO4D.com is a legitimate website for

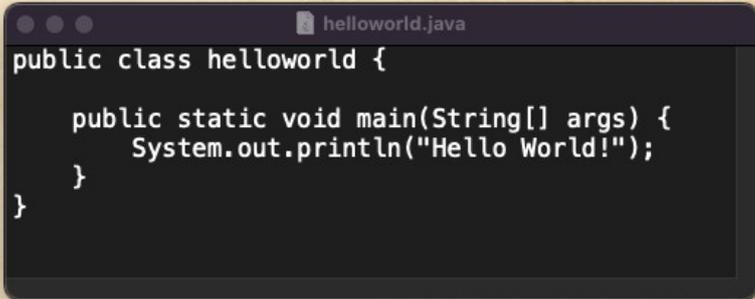
# What is an IDE?

- Word processors are used for making things look good to publish for human consumption.
- For coding, we just need *plain text*. We can use a *text editor*, such as...



# What is an IDE?

- If you use a *text editor* (and not an IDE), you will need to run your program using different software, often from the *command line*

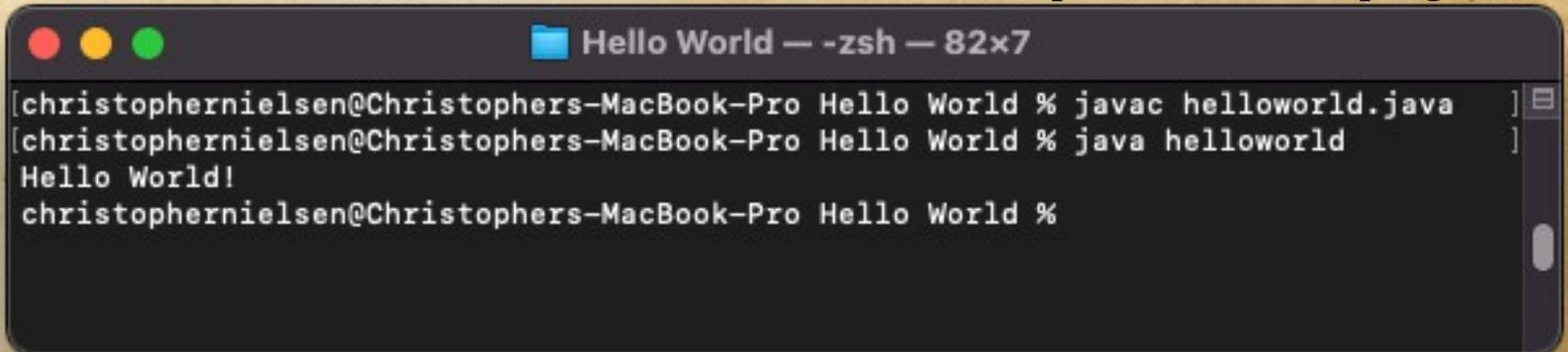
A screenshot of a text editor window titled 'helloworld.java'. The code inside is:

```
public class helloworld {  
    public static void main(String[] args) {  
        System.out.println("Hello World!");  
    }  
}
```

Here is our program in a text editor.



Here we are using Oracle's *Java Development Kit* (JDK) to compile and run the program.

A screenshot of a terminal window titled 'Hello World - zsh - 82x7'. The terminal shows the following commands and output:

```
[christophernielsen@Christophers-MacBook-Pro Hello World % javac helloworld.java ]  
[christophernielsen@Christophers-MacBook-Pro Hello World % java helloworld ]  
Hello World!  
christophernielsen@Christophers-MacBook-Pro Hello World %
```

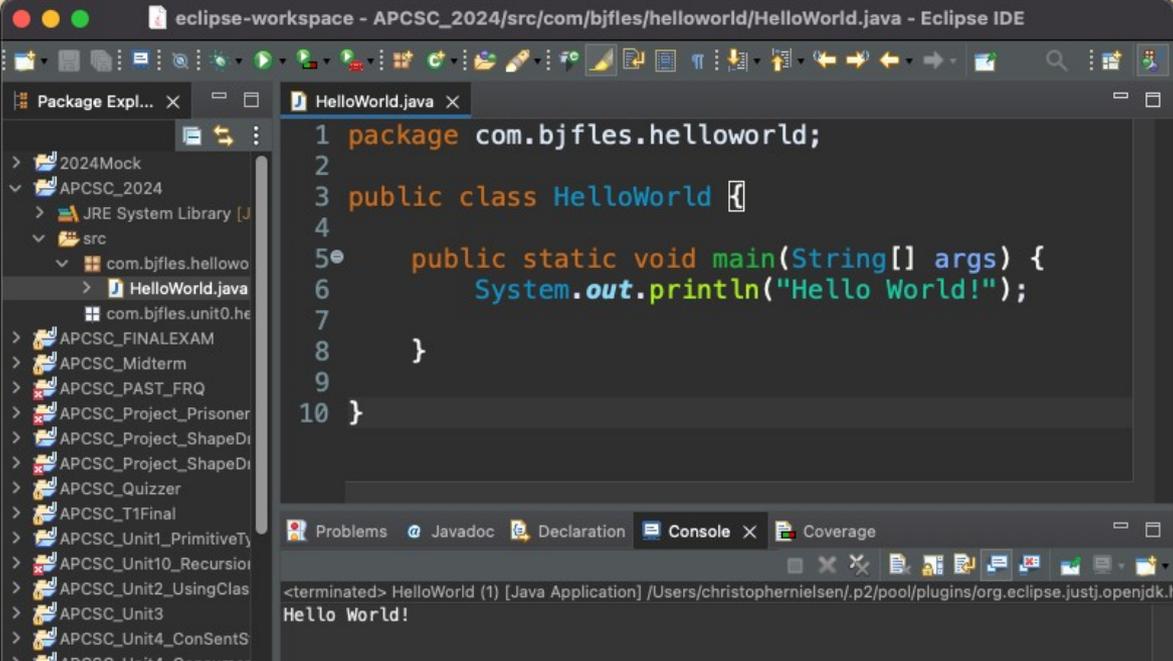
# What is an IDE?

- ***Integrated Development Environment (IDE)***

- Enhances productivity compared to using multiple programs for coding.
- Includes:
  - A text editor
    - Usually with features such as color coding, auto-indentation, and auto-complete
  - Build tools (compiler, etc.)
  - Debugger
- An IDE allows you to edit and run your program in one place
- Examples:
  - Eclipse, VS Code, IntelliJ

# Which IDE to choose?

- To start, I recommend students use **Eclipse**
  - Or, alternatively, **Visual Studio Code**
  - If you use another IDE, you will need to solve problems yourself...



The screenshot shows the Eclipse IDE interface. The title bar reads "eclipse-workspace - APCSC\_2024/src/com/bjflles/helloworld/HelloWorld.java - Eclipse IDE". The Package Explorer on the left shows a project structure with folders like "2024Mock", "APCSC\_2024", "JRE System Library", and "src". The main editor displays the following Java code:

```
1 package com.bjflles.helloworld;
2
3 public class HelloWorld {
4
5     public static void main(String[] args) {
6         System.out.println("Hello World!");
7     }
8 }
9
10 }
```

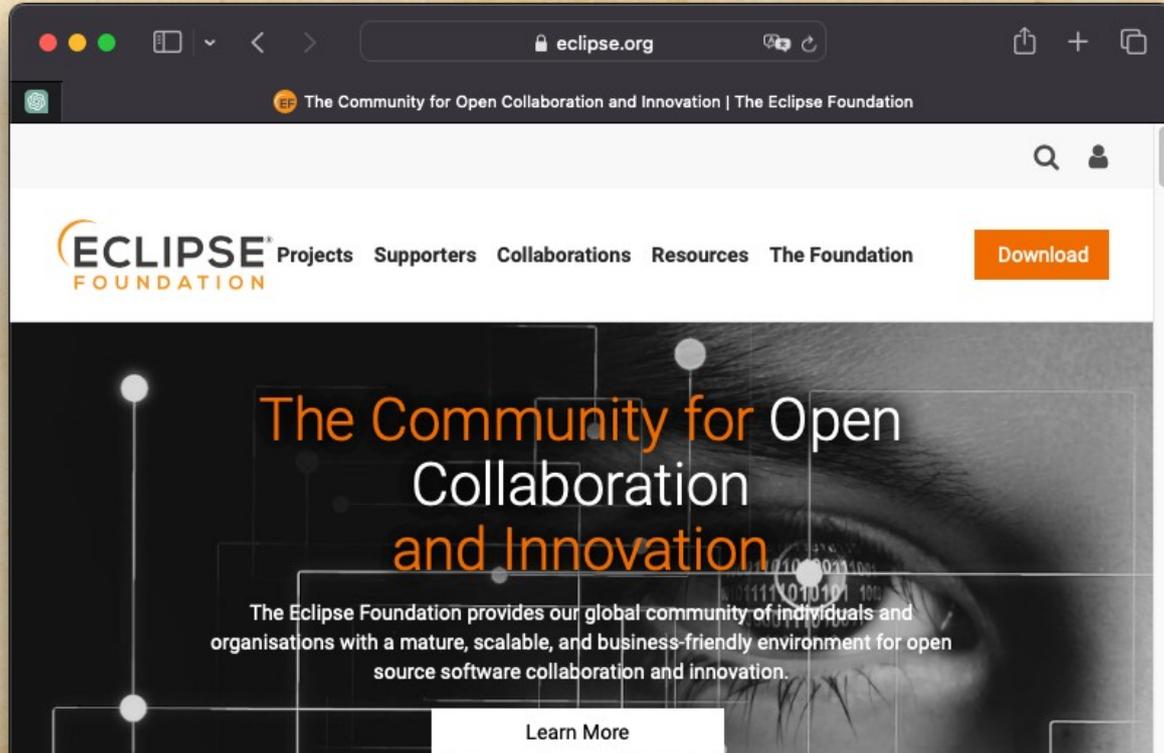
The Console at the bottom shows the output: "<terminated> HelloWorld (1) [Java Application] /Users/christophernielsen/.p2/pool/plugins/org.eclipse.justj.openjdk.l HelloWorld!"

# Installing Eclipse

- The next slides have instructions for installing Eclipse.
  - You can follow these if they work.
  - If you have trouble, search for online instructions.
    - **WARNING:** ensure you're downloading from **eclipse.org**, or you might be getting some extra *malware*!!

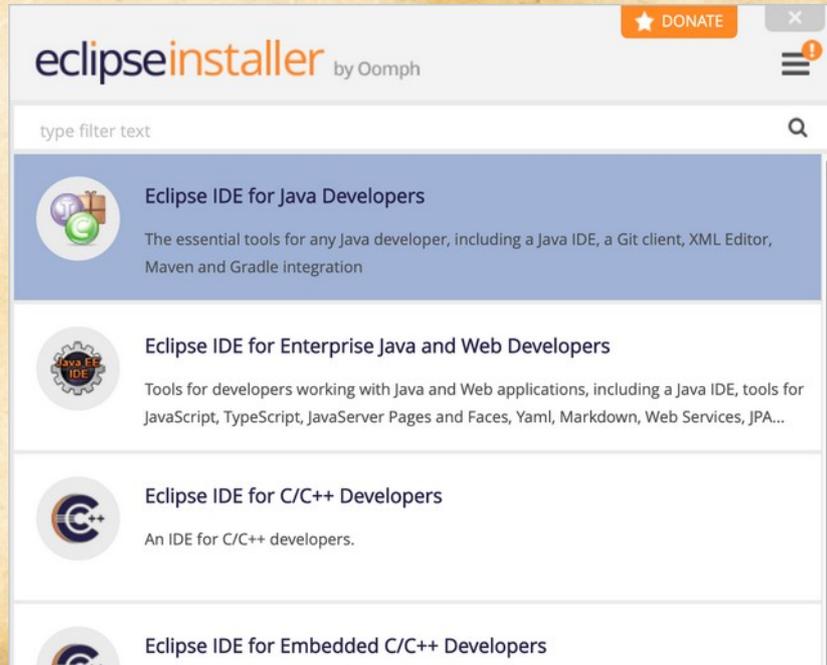
# Installing Eclipse

- Download the installer for Eclipse for your operating system from *eclipse.org* ...



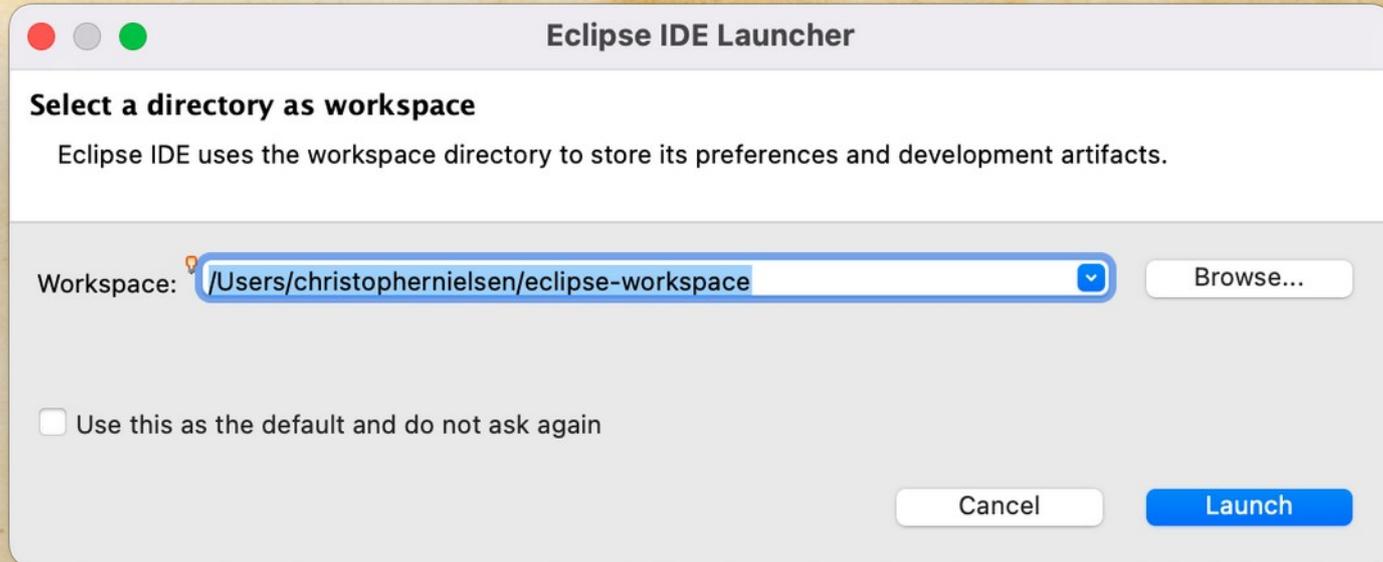
# Installing Eclipse

- Run the installer
  - **Important:** choose “**Eclipse IDE for Java Developers**”
  - Follow the instructions to complete installation, then run Eclipse



# Installing Eclipse

- When you start Eclipse...
  - the default directory should be fine.
  - **this is where your code will be saved!**



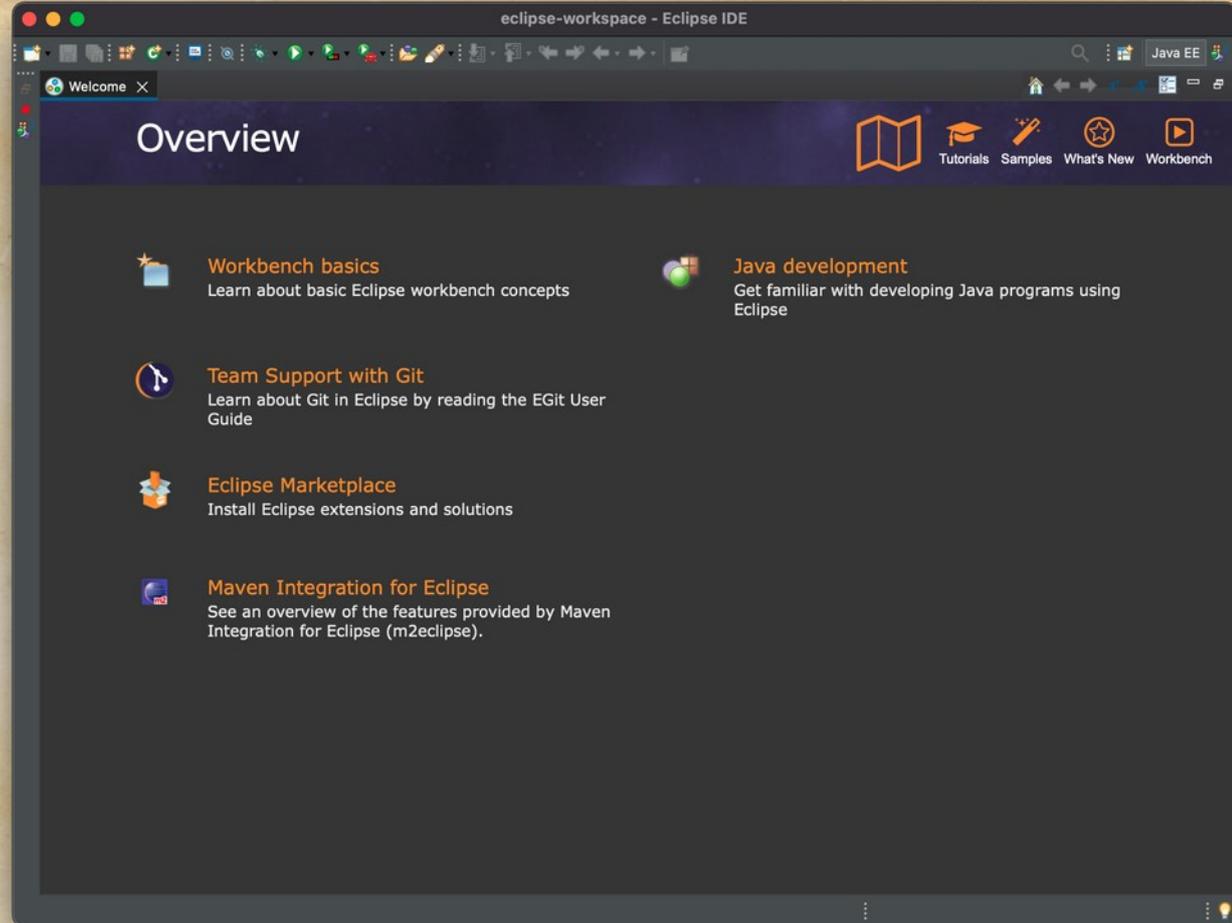
# Installing Eclipse

- If you get here, then it seems you have Eclipse installed successfully.



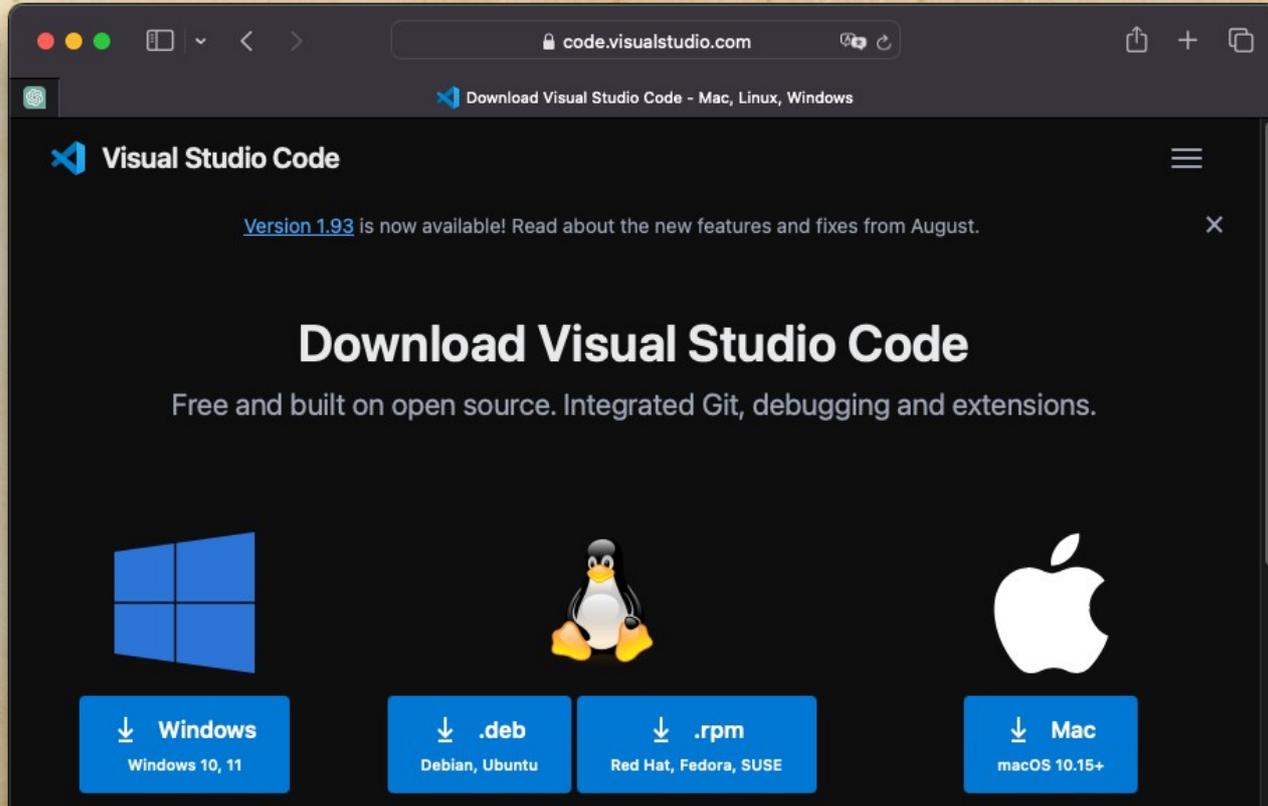
Congratulations!

- Next step is writing your first Java program!



# Installing VS Code

- Find instructions online, but be sure you're downloading from: ***code.visualstudio.com***





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Eclipse*