<u>**2-First Code In Java**</u>

First Java Program in VS Code

On the first launch of VS Code, you will be asked to choose a theme according to your preference. We will choose the dark theme. After opening the editor, you will see several icons on the left panel of the screen:

1. **Explorer Icon**: Used for locating files and folders.
2. **Search Icon**: Used to search for the desired file or folder.
3. **Source Control Icon**: Used for sharing or pushing our code to a repository or any version control system.
4. **Run & Debug Icon**: Used to run our program and debug it later if any error occurs.
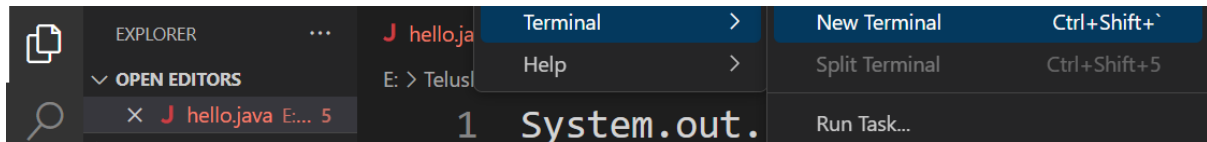5. **Extensions Icon**: Used to add suitable and required extensions.

==Creating a Project==

1. Click on **New Project**.
   - A project is a group of multiple files, including multiple external libraries and dependencies.
   - As this is our first project, we are not using any external library.
   - Choose a location where you will store your project files.
2. **Checking Java Version**:
   - Open the terminal in VS Code by clicking on the + icon and selecting **Open Terminal**.
   - Type the following commands to check the Java and Javac versions:

     java -version
     javac -version

   - Ensure you have Java 17, which is an LTS version.

==Creating Your First Java File==

1. **Create a New File**:
   - Name the file Hello.java.
   - As we use .js extension for JavaScript and .c for C files, we use .java extension for Java files.
2. **Writing the Code**:
   - To print "Hello, World!" on the screen as output, we need to write at least 3-4 lines of code because Java is a structured language.
   - However, from Java 9, we have JShell, which was introduced for beginners to understand the syntax and for experimental purposes. Using JShell, we can print this in a single line.
3. **Using JShell**:
   - Open JShell by typing jshell in the command prompt.
   - In VS Code, click on the + icon and select **Open Terminal** to open the terminal.

- o
- o   Type the following command in JShell:

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

- o   Whenever we write text inside the braces, we need to put it in double quotes. For numbers, we just write them as they are.
- o   Press Enter, and you will see the console displaying "Hello, World!".

```
jshell> System.out.print("Hello World");
Hello World
```

Running the Code in a Java File

If we try to compile and run the single line System.out.println("Hello, World!"); in a Java file, it will give errors.

```
PS E:\Telusko> javac .\hello.java
.\hello.java:1: error: class, interface, enum, or record expected
System.out.print("hello world");
^
1 error
```

```
PS E:\Telusko> java .\hello
Error: Could not find or load main class .\\hello
Caused by: java.lang.ClassNotFoundException: /\\hello
```

We will explore the errors and their meanings in the next chapter.