

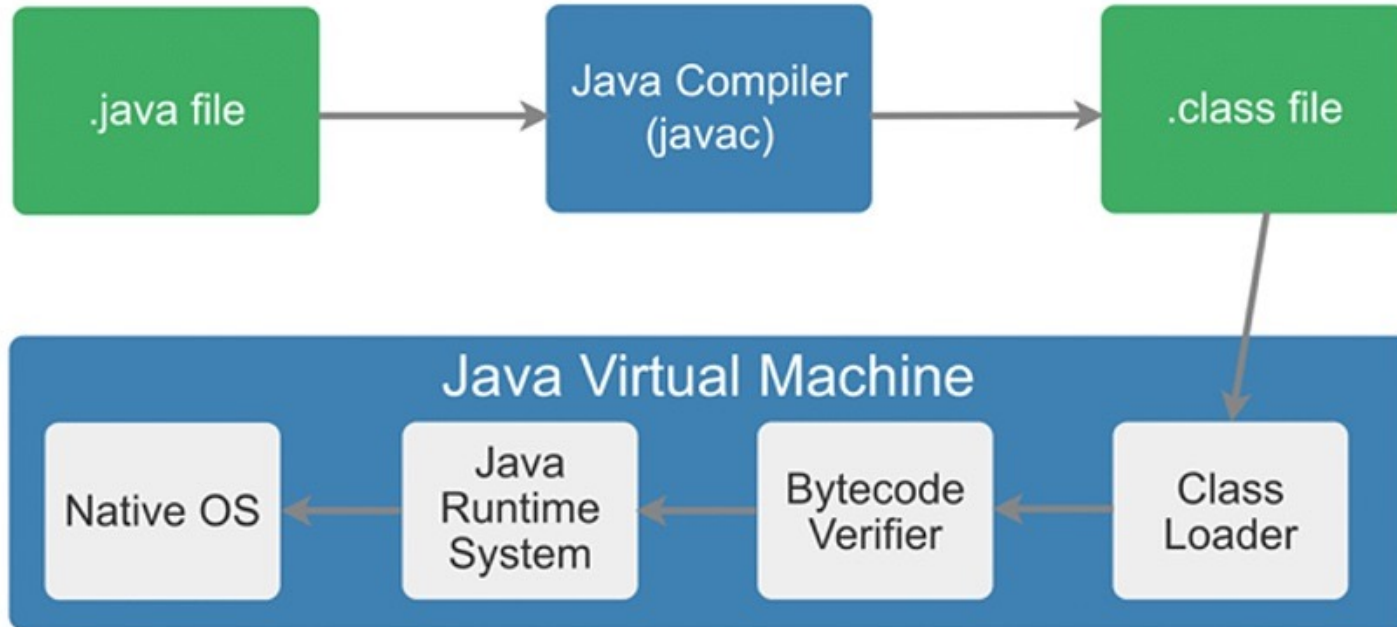
CS 234

Review – Compiling and running

Compiling and running

What is Java bytecode?

Instruction set for the Java Virtual Machine



Compiling and running

- `javac filename [options]`
 - `javac Hello.java`
- Output files
 - `java Hello`

Compiling and running

```
eduardo@asuslap:/mnt/DATOS/DATOS/MEGA_SYNC/ENMU/CS234/Java Projects/Project0$ ls
Hello.java*
eduardo@asuslap:/mnt/DATOS/DATOS/MEGA_SYNC/ENMU/CS234/Java Projects/Project0$ cat Hello.java
public class Hello{

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

}
```

Compiling and running

[illegible]

Compiling and running

```
eduardo@asuslap:/mnt/DATOS/DATOS/MEGA_SYNC/ENMU/CS234/Java Projects/Project0$ java Hello  
Hello Java!
```

Compiling and running

```
class Helper{  
    public Helper()  
    {  
        System.out.println("Inside Helper");  
    }  
}  
  
public class Hello2{  
    public static void main(String[] args) {  
        System.out.println("Hello Java!");  
  
        Helper helper = new Helper();  
    }  
}
```

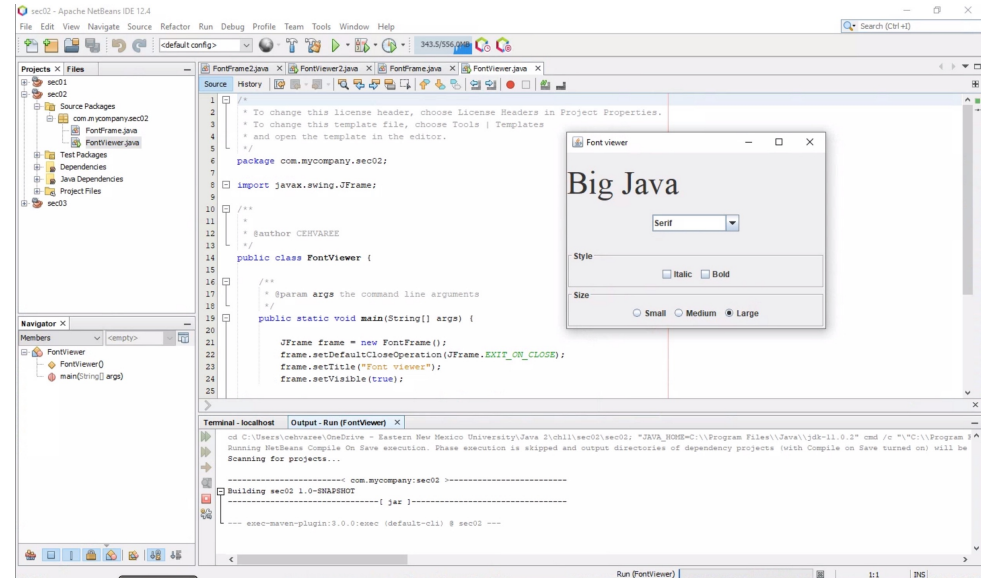
Compiling and running

```
eduardo@asuslap:/mnt/DATOS/DATOS/MEGA_SYNC/ENMU/CS234/Java Projects/Project0$ javac Hello2.java
eduardo@asuslap:/mnt/DATOS/DATOS/MEGA_SYNC/ENMU/CS234/Java Projects/Project0$ ls
Hello2.class Hello2.java Helper.class
eduardo@asuslap:/mnt/DATOS/DATOS/MEGA_SYNC/ENMU/CS234/Java Projects/Project0$ java Hello2
Hello Java
Inside Helper
```


Integrated Development Environment (IDE)

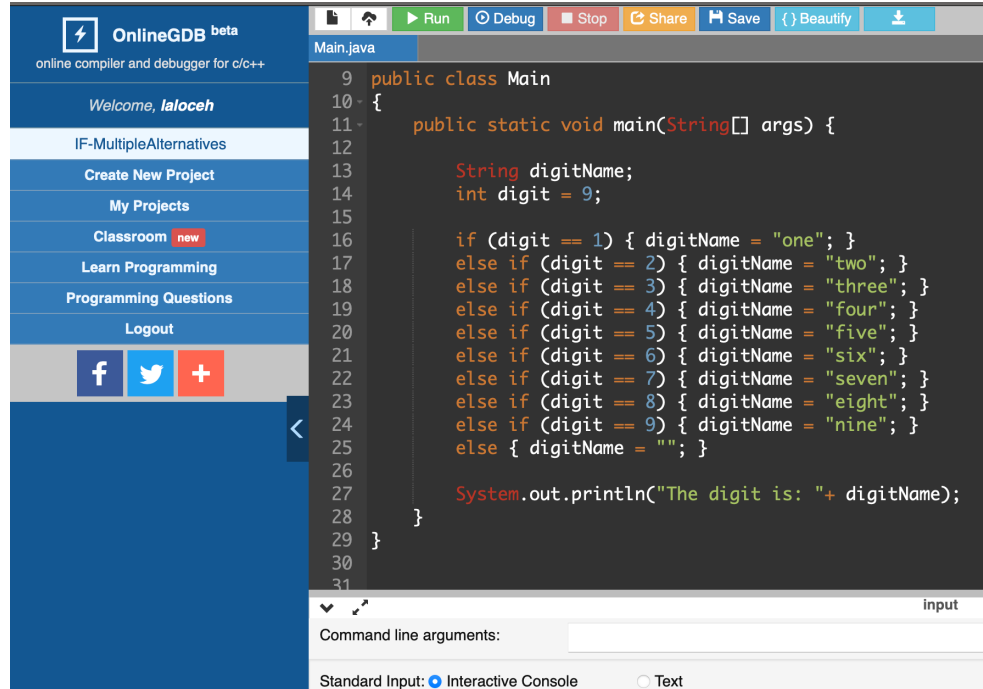
Set of tools to write, debug, and test your code in a single environment

- [Eclipse](#)
- [NetBeans](#)
- [IntelliJ IDEA](#)
- [BlueJ](#)
- [JDeveloper](#)
- [MyEclipse](#)
- [Greenfoot](#)
- [jGRASP](#)
- [jCreator](#)
- [DrJava](#)



Online IDE

<https://www.onlinegdb.com>



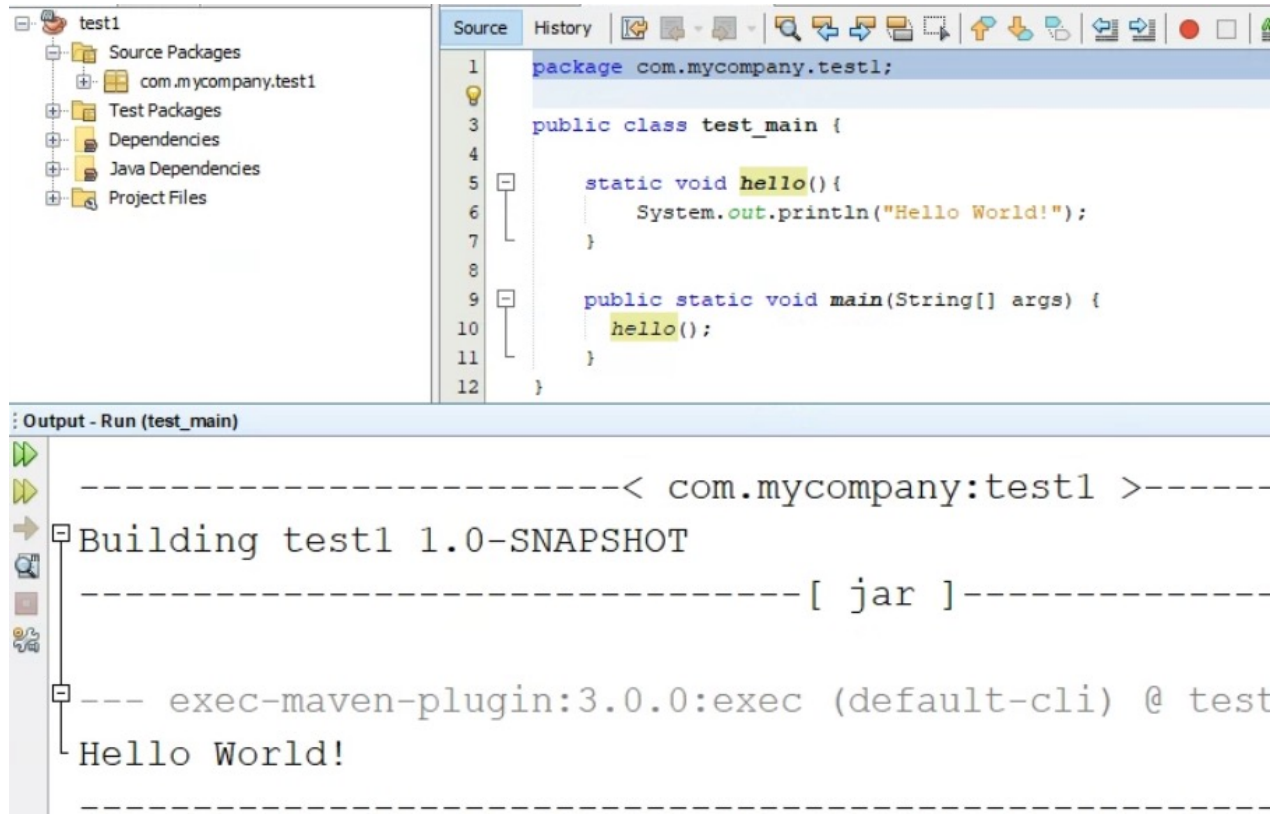
Java Packages and compilation

Be careful when using an IDE and later submitting your .java files.

I will run ALL your java files using command line interface.

I won't be using the same editor as you.

Java Packages and compilation



The screenshot displays an IDE interface. On the left, a project tree for 'test1' shows a package structure: 'Source Packages' containing 'com.mycompany.test1', 'Test Packages', 'Dependencies', 'Java Dependencies', and 'Project Files'. The main editor window shows the source code for 'test1'. The code defines a package 'com.mycompany.test1' and a public class 'test_main'. Inside 'test_main', there is a static method 'hello()' that prints 'Hello World!' and a 'main' method that calls 'hello()'. The bottom panel shows the output of running 'test_main', which includes the command 'exec-maven-plugin:3.0.0:exec (default-cli) @ test' and the output 'Hello World!'.

```
1 package com.mycompany.test1;
2
3 public class test_main {
4
5     static void hello() {
6         System.out.println("Hello World!");
7     }
8
9     public static void main(String[] args) {
10        hello();
11    }
12 }
```

Output - Run (test_main)

```
-----< com.mycompany:test1 >-----
Building test1 1.0-SNAPSHOT
-----[ jar ]-----
--- exec-maven-plugin:3.0.0:exec (default-cli) @ test
Hello World!
```

Java Packages and compilation

```
01/09/2022 09:37 AM <DIR> ..  
01/09/2022 09:37 AM 216 test_main.java  
1 File(s) 216 bytes  
2 Dir(s) 156,011,319,296 bytes free  
  
C:\Users\cehvaree\Documents\NetBeansProjects\test1\src\main\java\com\mycompany\test  
1>javac test_main.java  
  
C:\Users\cehvaree\Documents\NetBeansProjects\test1\src\main\java\com\mycompany\test  
1>java test_main  
Error: Could not find or load main class test_main  
Caused by: java.lang.NoClassDefFoundError: com/mycompany/test1/test_main (wrong nam  
e: test_main)
```

Java Packages and compilation

```
test_main_2.java x
1 //package com.mycompany.test1;
2
3 public class test_main_2 {
4
5     static void hello(){
6         System.out.println("Hello World!");
7     }
8
9     public static void main(String[] args) {
10         hello();
11     }
12 }
13
```

```
1>javac test_main_2.java
```

```
C:\Users\cehvaree\Documents\NetBeansProj
```

```
1>java test_main_2
```

```
Hello World!
```

Tips to test your code

1. Copy your .java files to a different location
2. Compile your .java files using the command ***javac***
3. Execute your program using the command **java**

