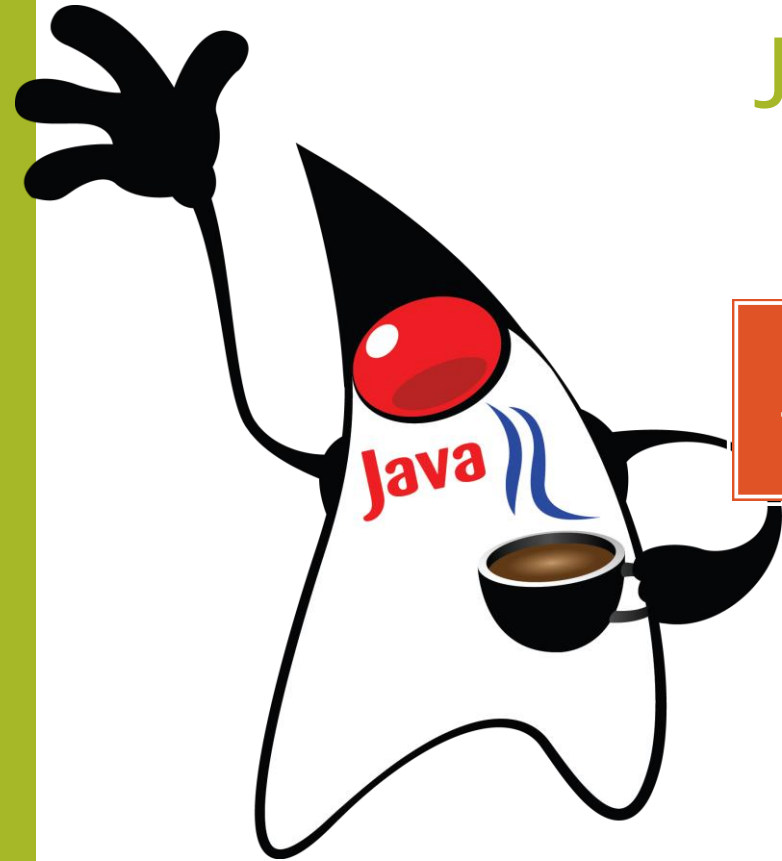


# OOP JAVA

---

Overview. Program Structure

# Java Platform Editions



Java Card

Java ME  
(Micro)

Java SE  
(Standard)

Jakarta EE  
(Enterprise)

Java FX

# Java SE

## JDK - Java Development Kit

- JRE (Java Runtime Environment)
  - JVM (Java Virtual Machine)
  - Java Core
- Compiler

## Java Language

# Download & Setup



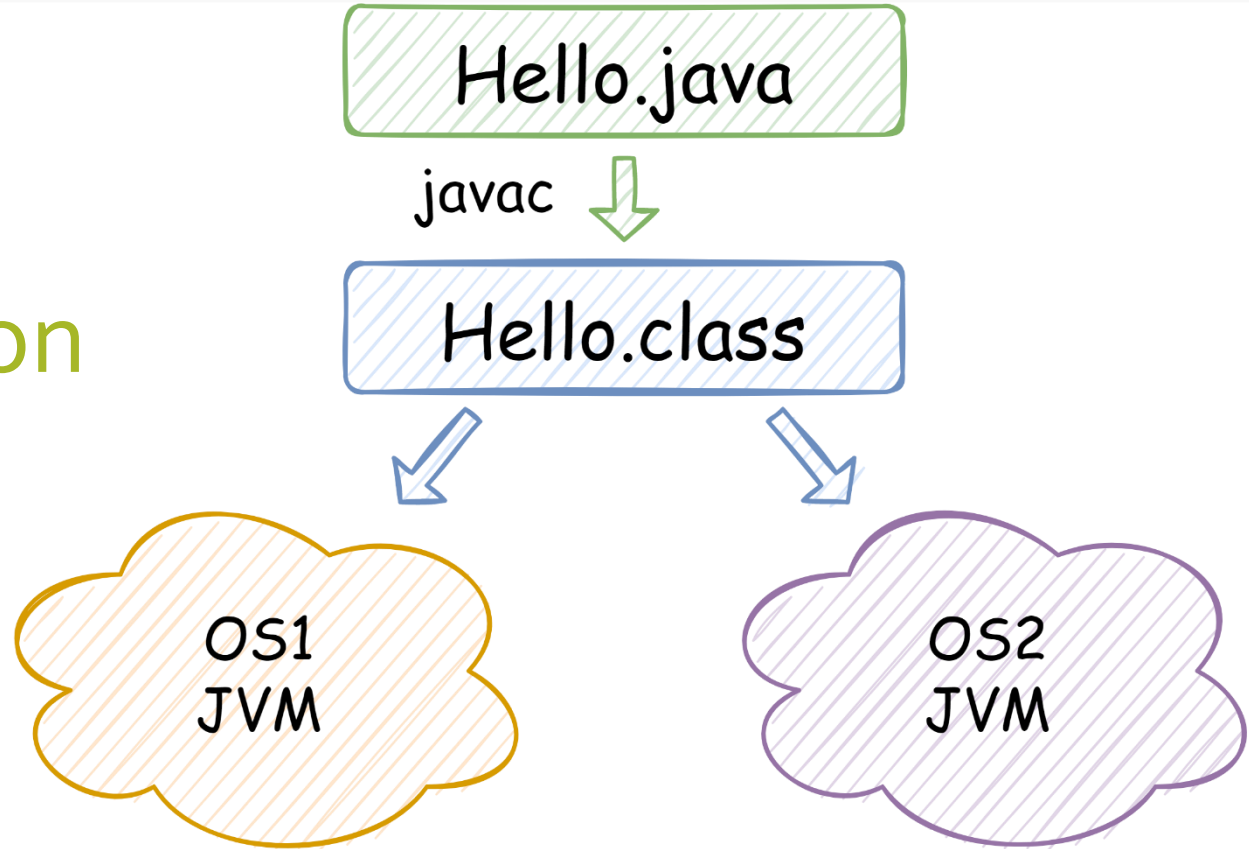
Google:

- oracle java download
- openjdk download



Environment variables:  
PATH, JAVA\_HOME

# Java Application



# Hello.java

```
public class Hello {  
    public static void main(String[] args) {  
        if (args.length < 1) {  
            System.out.println("Hi all.");  
        } else {  
            for (String arg : args) {  
                System.out.println("Hello "+ arg + "!");  
            }  
        }  
    }  
}
```

# Compile & Run



Compilation:  
Hello.java -> javac -> Hello.class



Run JVM:  
java Hello  
java Hello John Anne

# Packages

Hello - simple name

com.my>Hello - fully qualified name

```
package com.my;
public class Hello {
    public static void main(String[] args) {
        System.out.println("Hello everyone!");
    }
}
```



# Compile & Run



Specify where to place generated class files:  
`javac -d PATH Hello.java`



Run using classpath:  
`java -cp CLASSPATH com.my.Hello`

# Class Path

## Folders and Archive Files

```
java -classpath C:\java\MyClasses utility.myapp.Cool
```

```
java -classpath C:\java\MyClasses\myclasses.jar utility.myapp.Cool
```

## Multiple Specifications

```
java -classpath C:\java\MyClasses;C:\java\OtherClasses ...
```

The order in which you specify multiple class path entries is important

## Example

# Java IDEs

## Eclipse

- ✓ Good tools for charting, modeling, reporting, and testing.
- ✓ Supports other programming languages through plugins.
- ✓ Free of cost.

## IntelliJ IDEA

- ✓ Supports other JVM-based programming languages.
- ✓ Smart completion and chain completion.
- ✓ The community edition is free.

## NetBeans

- ✓ Offers a GUI Builder.
- ✓ Performance can be an issue.
- ✓ Free of cost.