

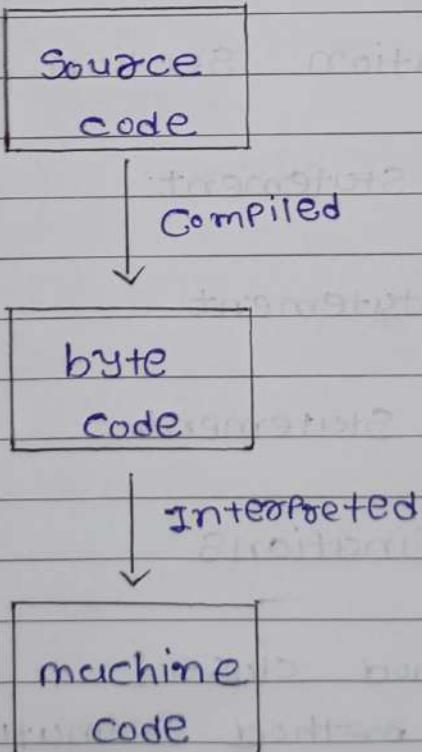
## \* Java

Java is a widely used object-oriented programming language that is designed to be platform-independent, meaning that Java code can be run on different platforms without the need for modification.

It was originally called Oak by James Gosling.

### \* How Java works?

Java is compiled into the bytecode and then it is interpreted to machine code.



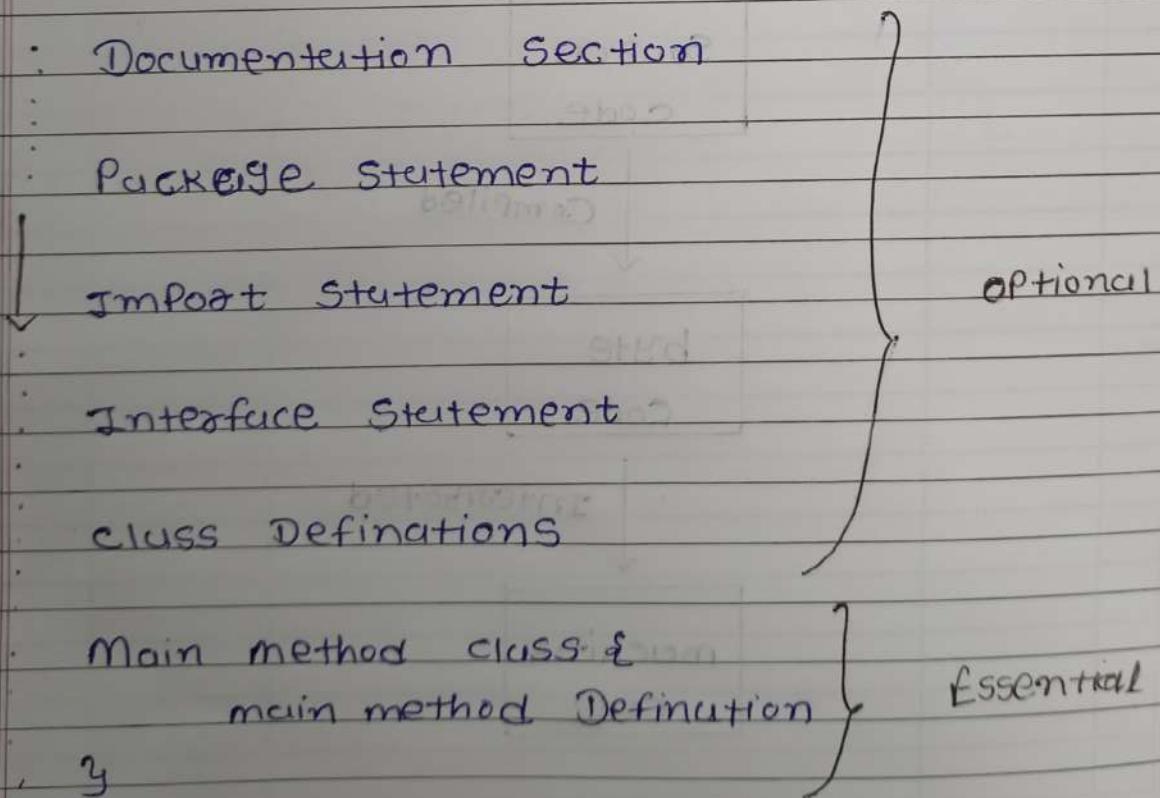
## \* JDK - Java Development Kit

The JDK is a software development kit that includes all of the tools necessary to develop Java applications. It includes the Java compiler, Java debugger, the Java documentation generator and JavaFX SDK.

## \* JRE - Java Runtime Environment

The JRE is required to run Java application. It includes the JVM, the Java class library. JRE is typically used by end-users who are running Java applications.

## \* Anatomy of A Java Program



## \* Data Types in Java

→ In Java, there are two types of data:

### I. Primitive Data Types

- byte : an 8-bit integer value
- short : an 16-bit integer value
- int : a 32-bit integer value
- long : a 64-bit integer value
- float : a single-precision floating point value
- double : a double-precision floating point value
- boolean : a true / false value
- char : a single character value

These data types are used to represent simple values, such as numbers or characters.

## \* Variables

→ A variable is used to store a data for processing. It is called variable because you can change the value stored in it.

In other words, a variable has a name, a type and a value of that type.