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SATURDAY  
DAYS 013-353

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## Data Types of Java

size

Default value

Type of value stored

Byte 1 byte

0

Integral

Short 2 byte

0

"

Int 4 byte

0

"

Long 8 byte

0L

"

Char 2 byte

'\u0000'

Character

Float 4 byte

0.0F

Decimal

Double 8 byte

0.0d

Decimal

boolean 1 bit

[till JDK 1.3 it]  
uses 1 byte]

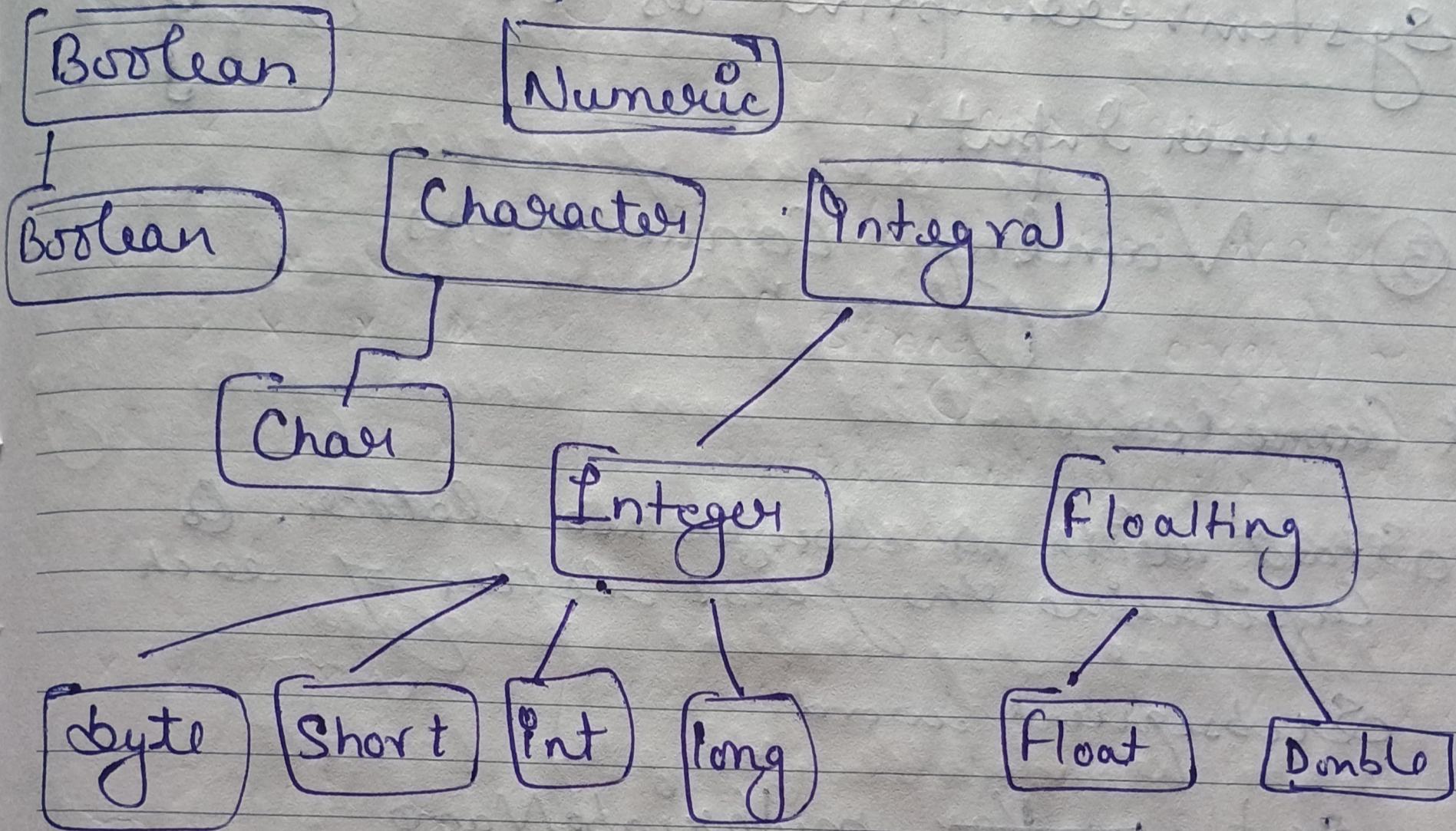
False

True or False

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# Primitive Data types



# Non primitive Data types

String  
arrays  
Objects

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System.out.print is used for  
user input.

### ③ Naming Conventions

#### \* Camelcase

- Start with a lowercase letter.
- Capitalize the first letter of each subsequent word.

Eg: ~~myVar~~ myVariableName

#### \* Snake case

- Start with an lowercase. Separate words with underscore.

Eg: My\_variable\_name.

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#### \* kebab-case

- All lowercase letters. Separate words with hyphens Example:

my-variable-name

#### \* keep a Good and Short Name

- Choose name that are descriptive but not too long, it should make it easy to understand the variable's purpose.

Eg: age, firstName, isMarried

#### # Identifier Rules (Java)

- The only allowed character for identifiers are all alphanumeric characters

[A-z], [a-z], [0-9], '\$' (dollar sign) and '\_' (Underscore)

- Can't use keywords or reserved words.

- Identifiers should not start with digits (0-9)

- Case Sensitive

- No limit on the length.

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Keywords

Default Super Switch strictfp

Void static final protected

throw native throws final

double transient new enum goto long

const byte char float short

Interface try return package.

continue public finally import

boolean private instanceof extends

abstract synchronized.

Holds 21 (C-odd) L5-A1

above because no dropdown, and that (C)

(C) with this text, the blood so will fit back (C)

without any (C)

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## # Escape sequences

Note

## Escape Sequences | Description

| t      Insert a tab in the text at this point

| b      Insert a backspace in the text at this point

| n      Insert a newline in the text at this point

|'      Insert a single quote character in the text at this point

|"      Insert a double quote character in the text at this point

||      Insert a backslash character in the text at this point

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## Tasks

public class Task {

public static void main ( String [] args ) {

System.out.print [

## # User Input

public class main {

public static void main ( String [] args ) {

Scanner scanner = new Scanner ( System.in )

System.out.print ("Enter your name: ");

String name = ~~new~~ Scanner.nextLine ();

System.out.println ("Wellcom " + name);

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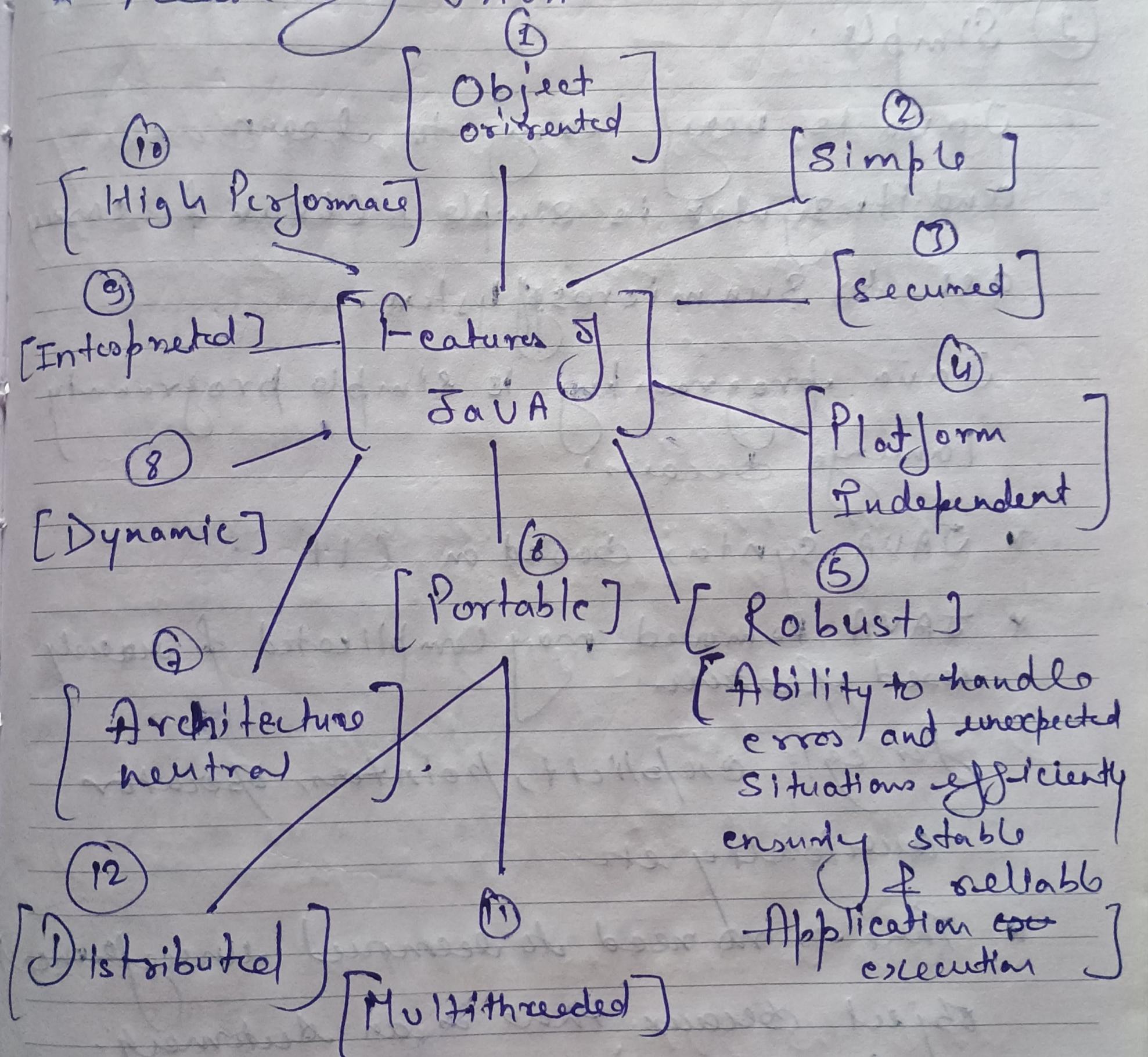
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## \* Features of JAVA



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## ① Simple.

Java is very easy to learn, and its syntax is simple, clean & easy to Sun microsystem.

Java programming is simple programming language because

- \* JAVA syntax based on C++
- \* JAVA removed many complicated & rarely used features (e.g. explicit pointers, operator overloading etc)
- \* There is no need to de-referenced object because there is an automatic Garbage Collection in JAVA.

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## ② Object Oriented:

JAVA is an OO programming lang.  
Everything in JAVA is an object

Object Oriented means we organize our software as combination of different type of object that incorporate both data & behaviour.

OOps.

- ① Object ② Class ③ Inheritance
- ④ Polymorphism ⑤ Abstraction ⑥ Encapsulation

## ③ Platform Independent

JAVA is platform independent because other lang. like C, C++ are which are compiled into platform specific machines.

While JAVA is write once, run anywhere language.

- ④ JAVA provides softwares based platform.

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## ④ Secured:

JAVA is best known for its security. With JAVA, we can develop virus-free system. JAVA is secured because

- \* No explicit port.
- \* JAVA runs own inside a virtual machine (JVM)

## ⑤ Classloader:

It's a part of JRE (JAVA Runtime Environment)

which is used to load Java class into the JVM.

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It adds security by separating the package for the class of the local file system from those that are imported from network. Yours

## ⑥ Bytecode Verification:

It checks the code fragments for illegal code that can violate access right to objects.

## ⑦ Security Manager:

It determines what resources a class can access such as memory and writing to the local disk.

## ⑧ Robust:

Meaning strong

- ① It has strong memory management.
- ② There is lack of pointer that avoid lack of security from & len.

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- ③ Automatic . finalize() clears up unused part of memory. This makes sure that memory isn't wasted on things the program won't need anymore.
- ④ Handle Mistakes Java can deal with mistakes or unexpected events in a program.
- ⑤ Checked Types Java checks to make sure that the right kind of data are used in the right place. This helps catch mistakes before they cause a problem.

## Class Simple

```
public static void main (String args[])
System.out.println ("Shubham");
```

javac  
java

JAVA code

Compiler

Byte code

simple.java

simple.class

[ String [] args, or String args[] ]  
→ Command line arguments

Valid JAVA main() method signatures

public static void main [ String [] args ]

" " " " " ( String [] args )

" " " " " ( String args[] )

" " " " " ( String... args )

Static public void main ( String [] args )

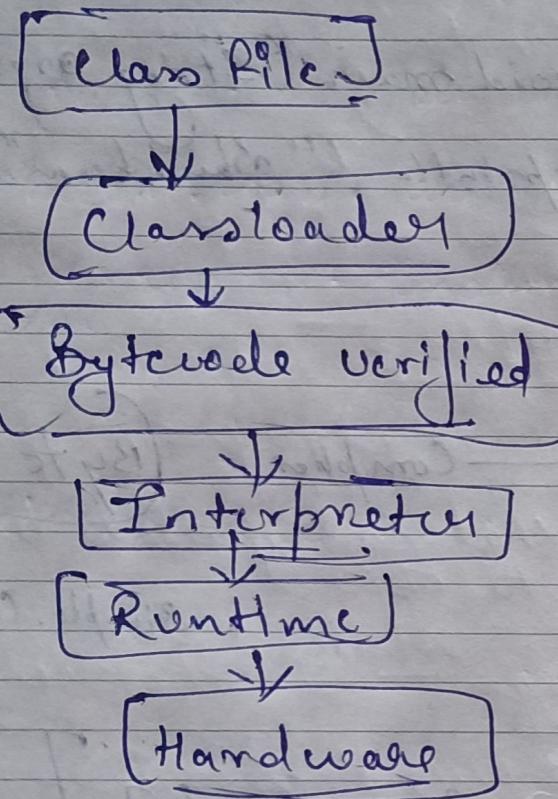
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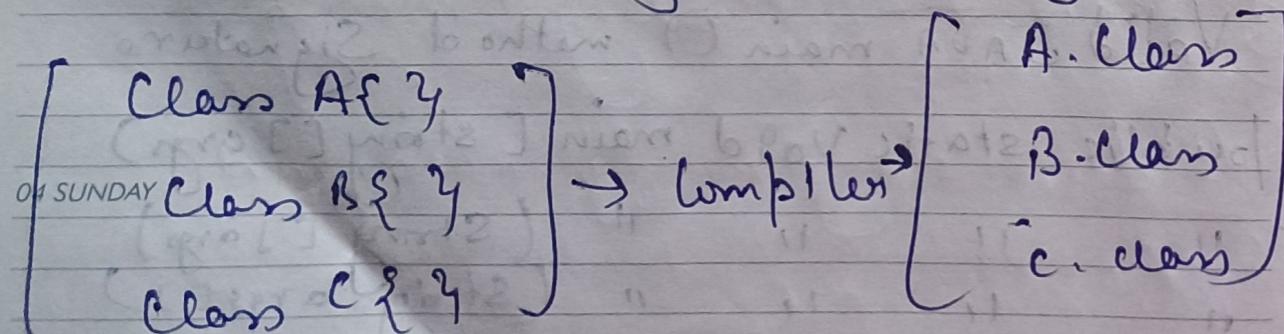
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## JAVA RUN TIME PROCESS



\* There is In Java there is multiple classes in a Java source file.



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D.java

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## # JAVA Features

Portable - Java is portable because it facilitates you to carry the Java bytecode to any platform. It doesn't require any implementation.

① High performance - Java is faster than other traditional interpreted programming language because Java bytecode is "close" to native code. It still a little bit slower than C++.

Java is interpreted language that is why Java is little slower than compiled language.

② Architecture-neutral - Java is architecture neutral because there are no implementation dependent feature for eg. the size of primitive data type.

In C programming int data type occupies 2 bytes of memory for 32-bit architecture and 4 bytes of memory for 64-bit architecture.

However it occupies 4 bytes of memory for 32 and 64-bit architecture in Java.

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Dynamic! Java is a dynamic language.

It supports the dynamic loading of classes.

It means classes are loaded on demand.

It also supports functions from its native language.

i.e C or C++

Multi-threaded