Class 1 - Intro to programming

Wednesday, August 20, 2025 8:06 PM

] is way to task to computer and get the task done

⇒ Programming language
↳ To give some concrete | definitive instructions.

Types of Programming languages

- Procedural] is Kaise
- OOPS] is what | Cis chez

⇒ Java

Hello World

```
System.out.println("Hello World");
```

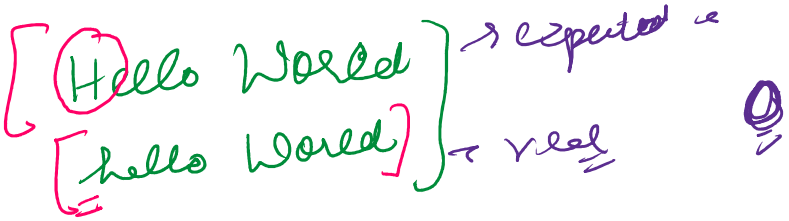
end of one programming statement

DSA Question Format

→ Problem Statement

→ Input format

→ Output format



Where to write code

```
public class Main {
    public static void main(String[] args) {
        // write code here
    }
}
```

#

```
System.out.println("Hello World");
```

System.out.println("Hello");

println → new/next line

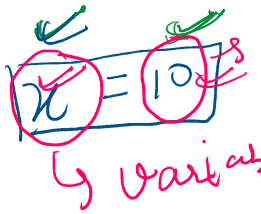
Hello

Hello

* Java always starts execution from the 'main()' function/method.

* Dry Run → Running the code on paper pen.

→ System.out.print("Hello"); → cursor stays in the same line



Variables → box/container which holds some value.

↓ blocks of a code.

Variables → box / con...

↓

Fundamental building blocks of a code.

$$\left\{ \begin{array}{l} x = 10; \\ y = 10.5; \end{array} \right\}$$ → can

whole number — bina decimal wale nos.

integers → Bina decimal wale nos.

✓ [10, 9, 35, 1,00,00,000]

[31.7] ✗

int x = 10 → integer

↓

[Data type]

[JavaScript, Python]

Data types

- → Primitives → simple
- → Non-Primitives

→ Primitive → can only store a single type of value

int x = 10 15;

of values

int x = 10;

⇒ Non-Primitives → complex data types used to store multiple value

Primitives in Java

integers
- byte → [-128 - 127]
- short → -32768 - 32767
- int → $-2^{31} - 2^{31}-1$
- long → $-2^{63} - 2^{63}-1$

8 Bytes
- double → decimal upto values
- float → 4 bytes

2 Bytes → char → anything that can be stored in single with help of (quotes)

1 Byte → boolean → true | false

'b'

'C' → single space → character data type

Units of Memory

1 bit → 0 | 1

8 bits → 1 Bytes

1024 Bytes → 1 KB

1024 KB → 1 MB

1024 MB → 1 GB

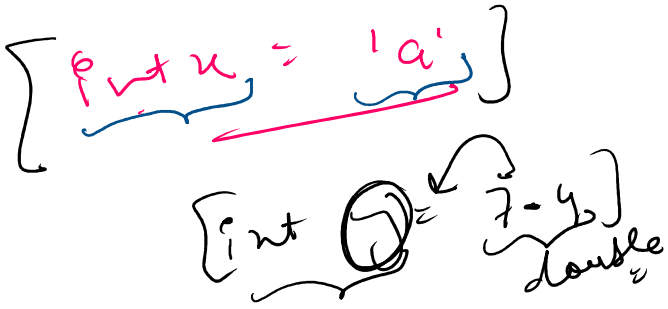
1024 GB → 1 TB

1024 TB → 1 PB

Size of Data types

- byte → 1 Byte
- short → 2 Bytes
- int → 4 Bytes
- long → 8 Bytes

float → 4 Bytes
double → 8 Bytes
char → 2 Bytes
boolean → 1 Byte.



37 → By default integer datatype

3.7 → double ka decimal

Declaration and initialization

int x; → declaration.

x = 10; → initialization

x = 10; → initialization

comments → normal text used to give some info
↳ ignored by compiler

// → comments