

Compiler → JDK ✓ → 17 → 8

Interpreter → JVM ✓

Editor → Notepad, sublime,
VS Code,

IDE → Eclipse, Netbeans.

IntelliJ IDEA ✓

Integrated
Development
Environment

Variables, Data-types & Operators.

a
5
variable

a = 5

int → 4 bytes

double → 8 bytes

boolean → 1 byte

char → 2 bytes

8 → long
2 → short
1 → byte

4 bytes → float

Primitive
Data-
types

→ int a=5;

→ int b=a++ + ++a + a--;

19

a = 5, 6, 7, 6

[Identifiers]

class Alien → Identifier
{

int age;

void code()

{

}

}

$\&$ AND

(11) \rightarrow OR

) \rightarrow NOT

$$T \ T \rightarrow T$$

$$T \ T \rightarrow T$$

$$T \rightarrow F$$

$$T \ F \rightarrow F$$

$$T \ F \rightarrow F$$

$$F \rightarrow T$$

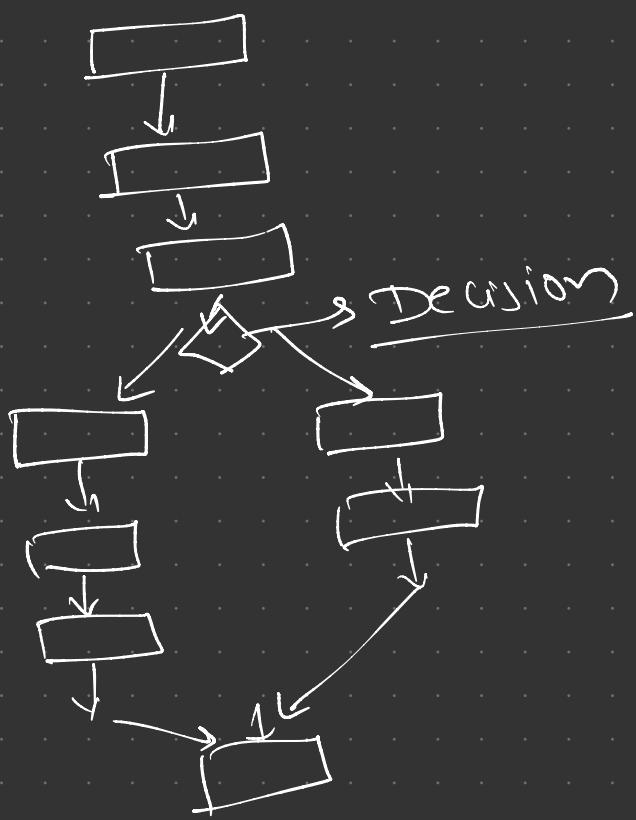
$$F \ T \rightarrow F$$

$$F \ T \rightarrow T$$

$$F \ F \rightarrow F$$

$$F \ F \rightarrow F$$

$$F \rightarrow F$$



$$a=5$$

$$b=0$$

$$b = \frac{a+f}{5} + \frac{t+g}{7}$$

$$a=7$$

(12)

Loops



while, for, do while

for each (Enhanced)

* * * *

int i = 1; →

while (i <= 5) ⑥ <= 5

{
 SOP ("*");
 i++;
}

* * * *
* * * *
* * * *
* * * *
* * * *

↓ ↓ ↓ ↓
1 2 3 4
↓ ↓ ↓ ↓
1 2 3 4
↓ ↓ ↓ ↓
1 2 3 4
↓ ↓ ↓ ↓
1 2 3 4

✓ 1 → * * * *

2 → * - - *

3 → * - - *

✓ 4 → * * * *

↑ ↑ ↑ ↑

1 2 3 4

✓

A decorative border made of green asterisks (*). The border consists of two rows of asterisks. The top row has five asterisks, and the bottom row has four asterisks. The asterisks are arranged in a staggered pattern, creating a diamond-like shape in the center.

TELUSKO

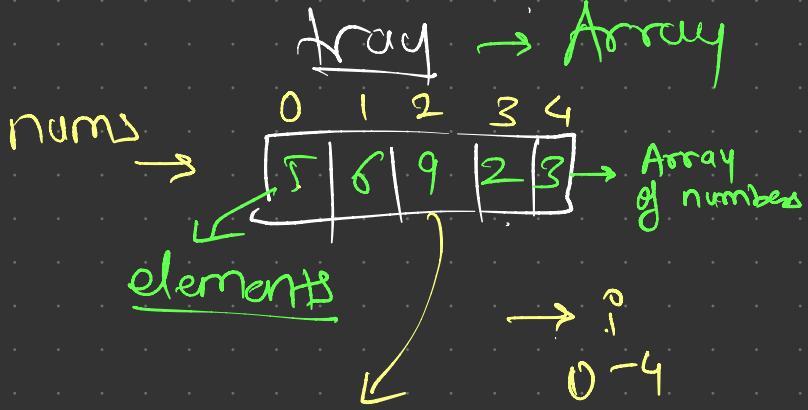
JINEURON

Array

6

navin

5, 6, 9, 2, 3



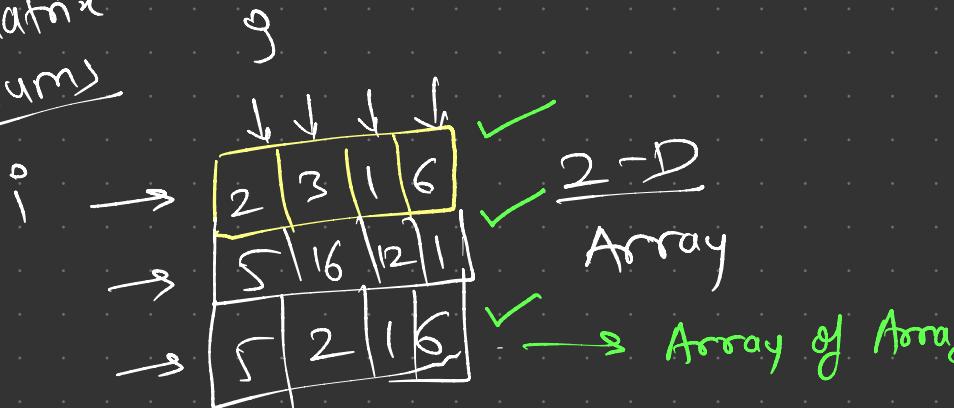
nums[2] → 9

int nums[] = new int[5]; ✓

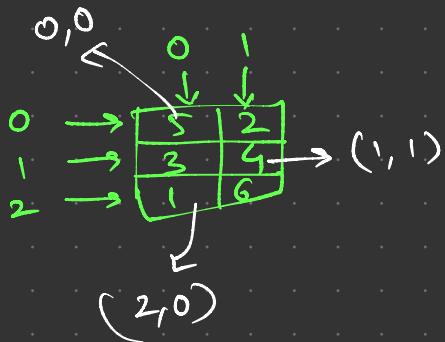
0 0 0 0 0
0 1 2 3 4

matrix

nums

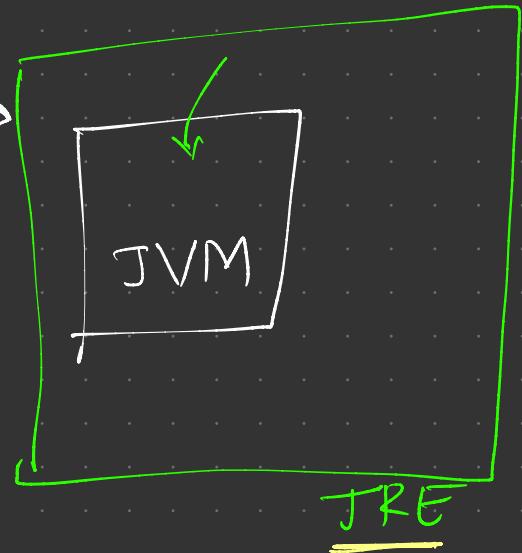


nums[] []



Object

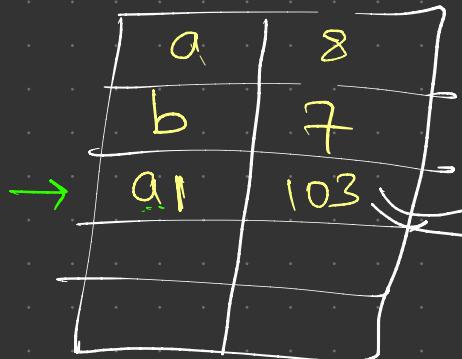
Java



Object

Stack

LIFO



main Stack

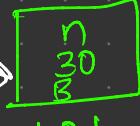
Queue



FIFO

Heap

Eligible
for
GC



Heap

a=8;

a1 = new Alien();

new Alien();

main()

{
 int a, b;
 a=6;
 b=7;

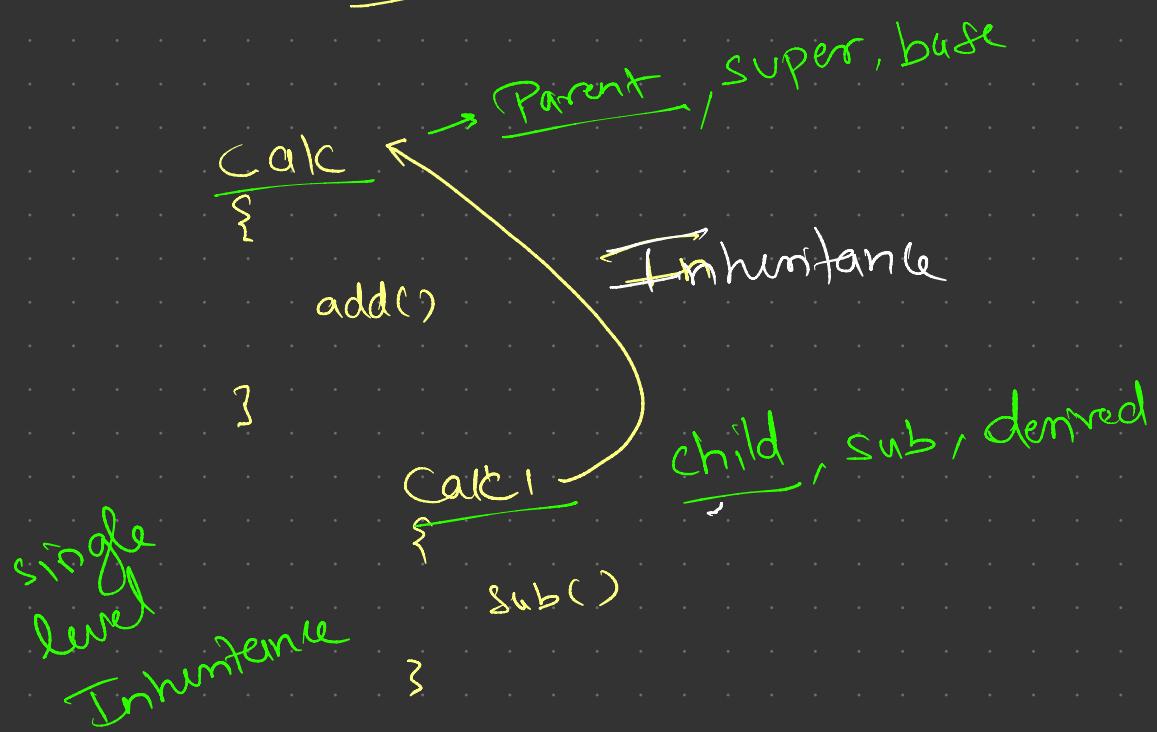
local

Alien a1 = [new Alien();]

Constructor { → name is same as class Name
 { → Looks like a method.

Constructor will be called whenever
we create an object.

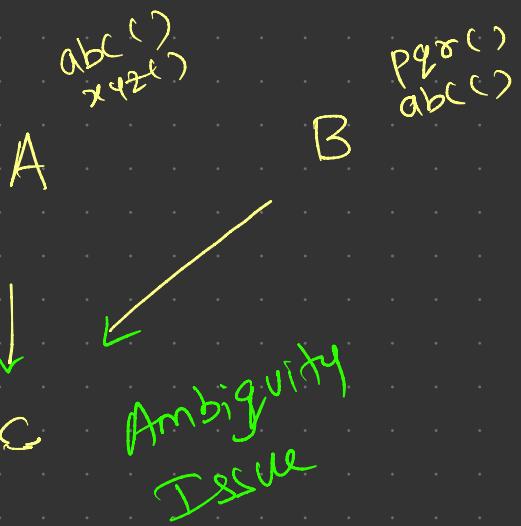
Inheritance



{ Single-level Inheritance } supported

{ Multi-level Inheritance }

Multiple Inheritance



C $\text{obj}^{\circ} = \text{new } \text{C}();$
 $\text{obj}^{\circ} \cdot \text{abc}(); \checkmark$
 $\text{obj}^{\circ} \cdot \text{xyz}();$
 $\underline{- \text{obj}^{\circ} \cdot \text{pqr}();}$

Computer → Laptop
→ Desktop
→ Mobile

(C) $\text{obj}^{\circ} = \text{new } \text{D}();$
2

class C
{} = 2
>
class D extends C
{} 2+1

>
class L extends C
{} 2+3
>