ARMSTRONG NUM

06 November 2022 09:18

↳ $num = \sum_{i=1}^{n} (digit_i)^n$

- num → Digits
- nod

$153 \Rightarrow 1^3 + 5^3 + 3^3$

$= 1 + 125 + 27$

$= 153$

$154 \Rightarrow 1^3 + 5^3 + 4^3$

$1 + 125 + 64$

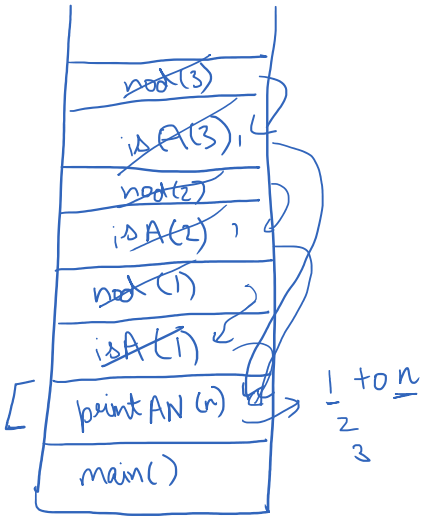
$= 190$

$2^1 = 2$

num → (1 → n) →

↳ X

↓



1

2

3

ARRAYS

06 November 2022 09:35

~~X~~ numbers ✓ → input & store

int, int, int ✓

int, char, int ✗

int, float, long ✗

N Homogeneous (??) type ki cheezon ko store krna hai

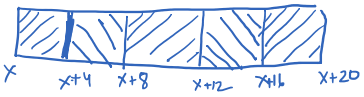
↓

Array use krlo

↳ Contigiously

int type ki array ⇒ 5 integers = 20 byte

↳ 4 byte



int [ ] array = new int [5];

LHS

X

↳ Base Address

↓

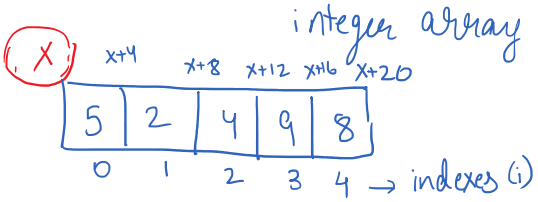
Array ka starting Address

RHS → Array store ho nahi hai Heap memory mein

new ? → Heap memory bnadega ?

Kya

5 size ka integer array



$X + (4 * i) \rightarrow X + 4 * (i+1)$:

0	X → X+4
1	X+4 → X+8
2	X+8 → X+12
⋮	
n	X+4n → X+4(n+1)
⋮	
N-1	

Enhanced For Loop

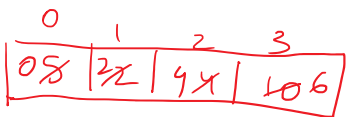
↳ Indexing Nahi Chaiye

Limitations

1) Read Only / Cannot Update

2) Start to End

arr



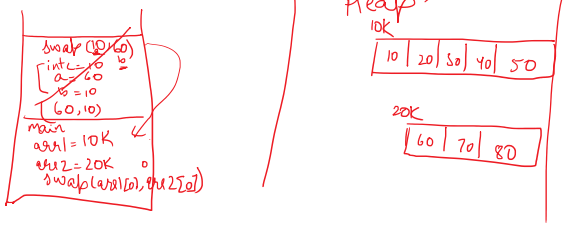
for (i=0; i<4; i++) {

arr[i,j] = 2*i + j

arr1 = {10, 20, 30, 40, 50}

arr2 = {60, 70, 80}

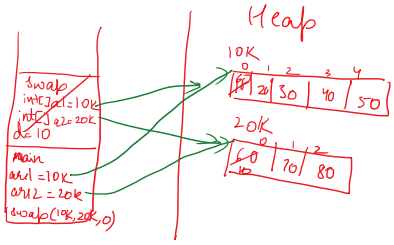
swap(arr1[0], arr2[0]);

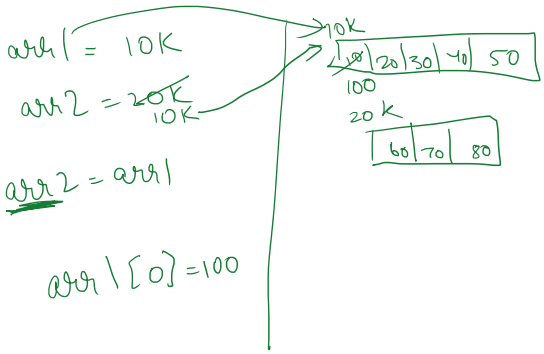


swap(arr1, arr2, i)

arr1 = {10, 20, 30, 40, 50}

arr2 = {60, 70, 80}



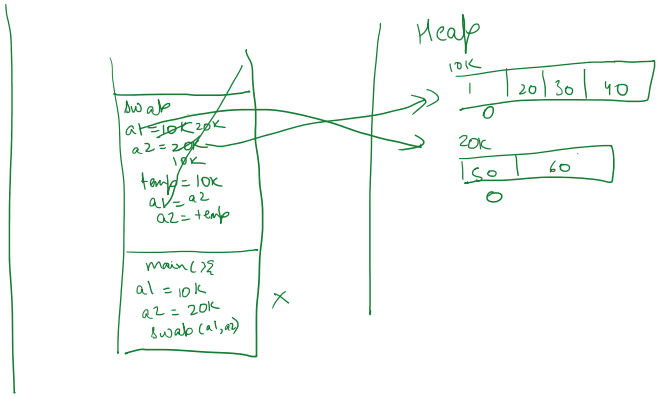


2 arrays swap?

int[]arr1 = {10, 20, 30, 40}

int[] arr2 = {60, 70, 80}

swap(arr1, arr2);




```
public static void swap(int[] a1, int[] a2){
    int[] temp = a1;
    a1 = a2;
    a2 = temp;
}
```

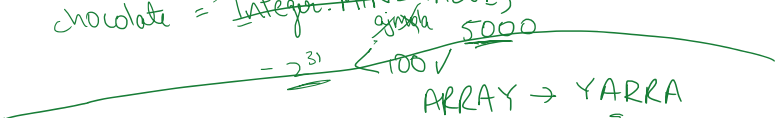
LHS Store?

Primitive → Value

Non Primitive → Address

int[] arr = {100, -200, 50, 5000, -20};

chocolate = ~~Integer.MIN~~ VALUE;



ARRAY → YARRA

1) Reverse

{10, 20, 30, 40} ⇒ {40, 30, 20, 10}

ARR[0] = 10

YARRA[0] = 40

2) Rotate

10, 20, 30, 40

k=1 → 40, 10, 20, 30

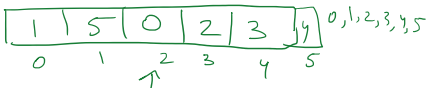
k=2 → 30, 40, 10, 20

2 → Rotate Loop

Bina Loop

n=5 , 20, 30, 40, 10 → Hint 1)

3) Inverse



Digit	Position
1	0
5	1
0	2
2	3
3	4
4	5