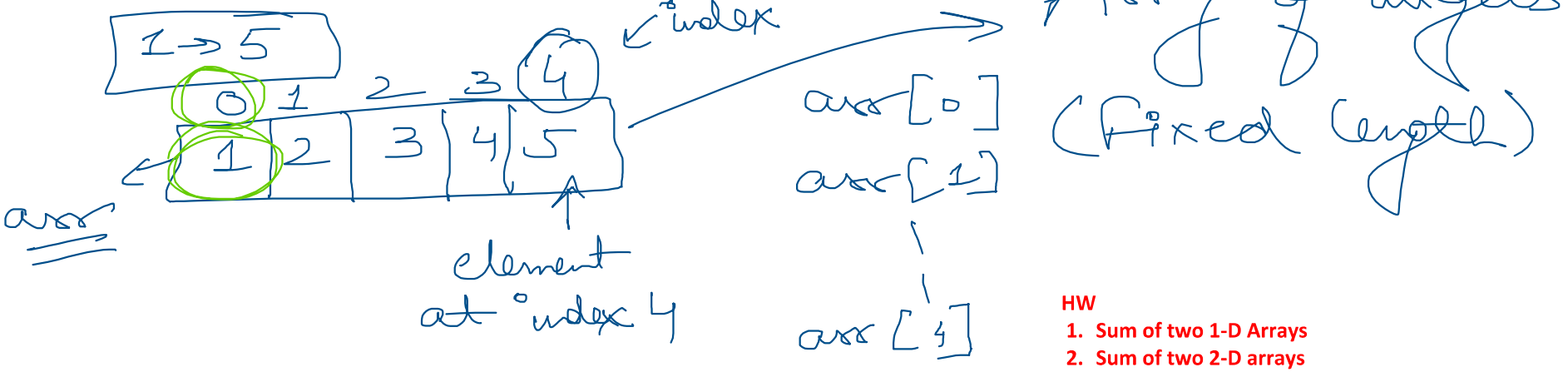
Arrays July - 10

10 July 2020 18:40

DS → Way to organise & store data.



Array of integers (Fixed length)

Array is an indexed collection of finite number of homogenous data elements.

↓

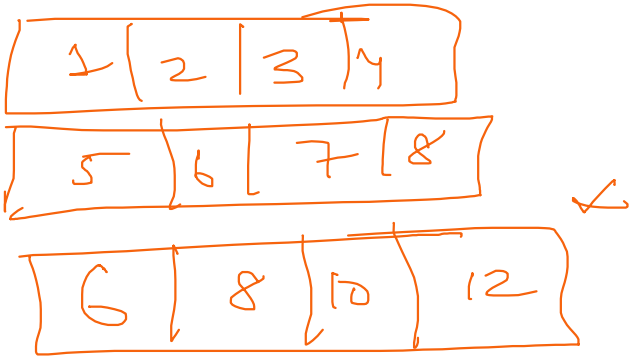
like elements

↓

similar elements

HW

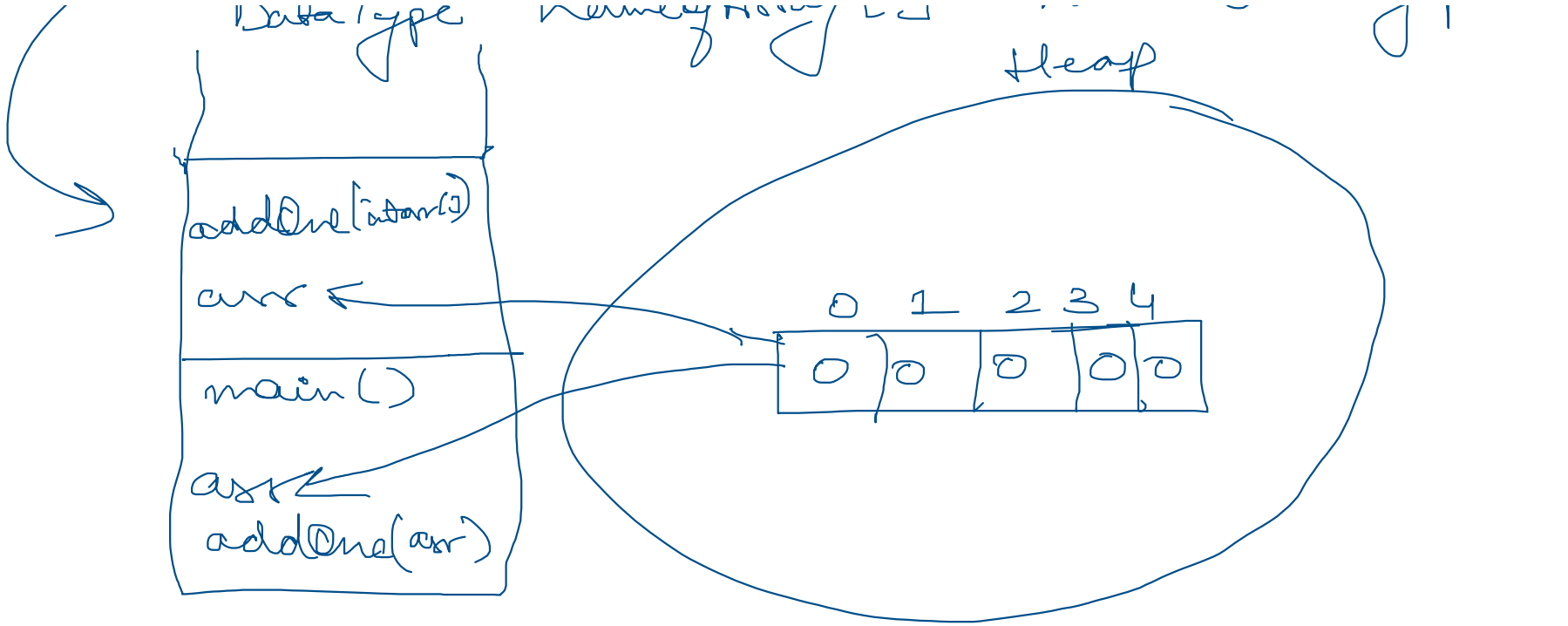
1. **Sum of two 1-D Arrays**
2. **Sum of two 2-D arrays**
3. **Sum of Two Jagged Arrays**



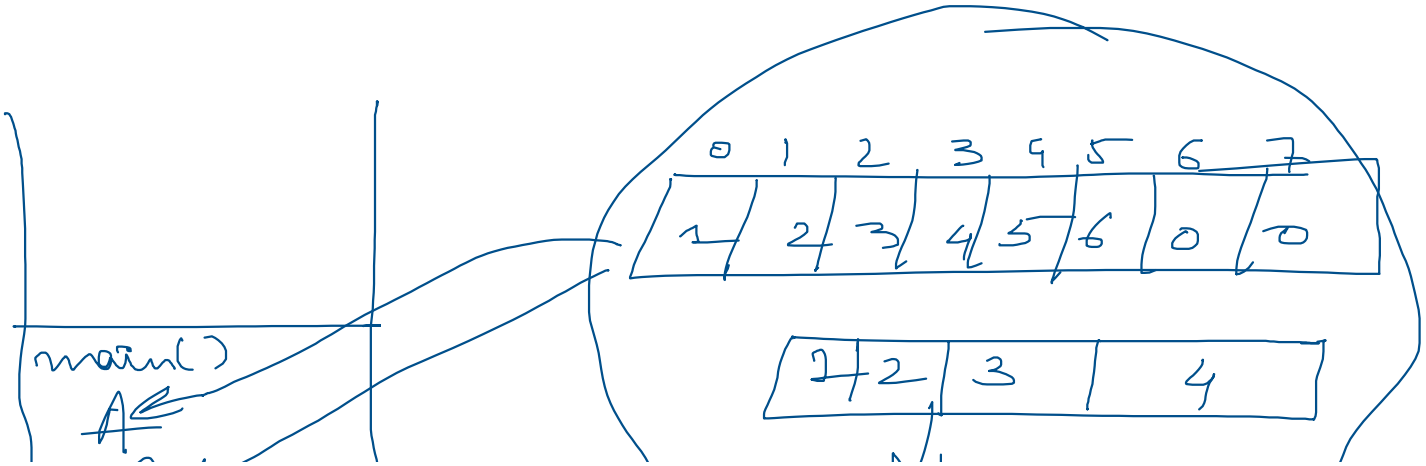
Array is an object in Java.

```
int arr[] = new int[5];
```

```
DataType[] arrayName = new datatype[size];
```



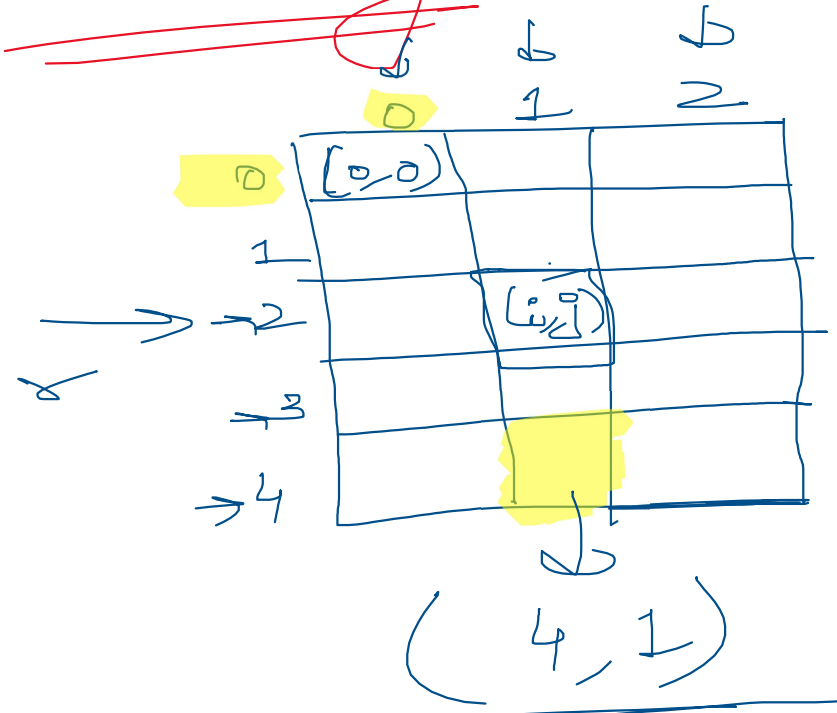
We have passed a copy of reference.



Garbage

1-D Array

2-D Array



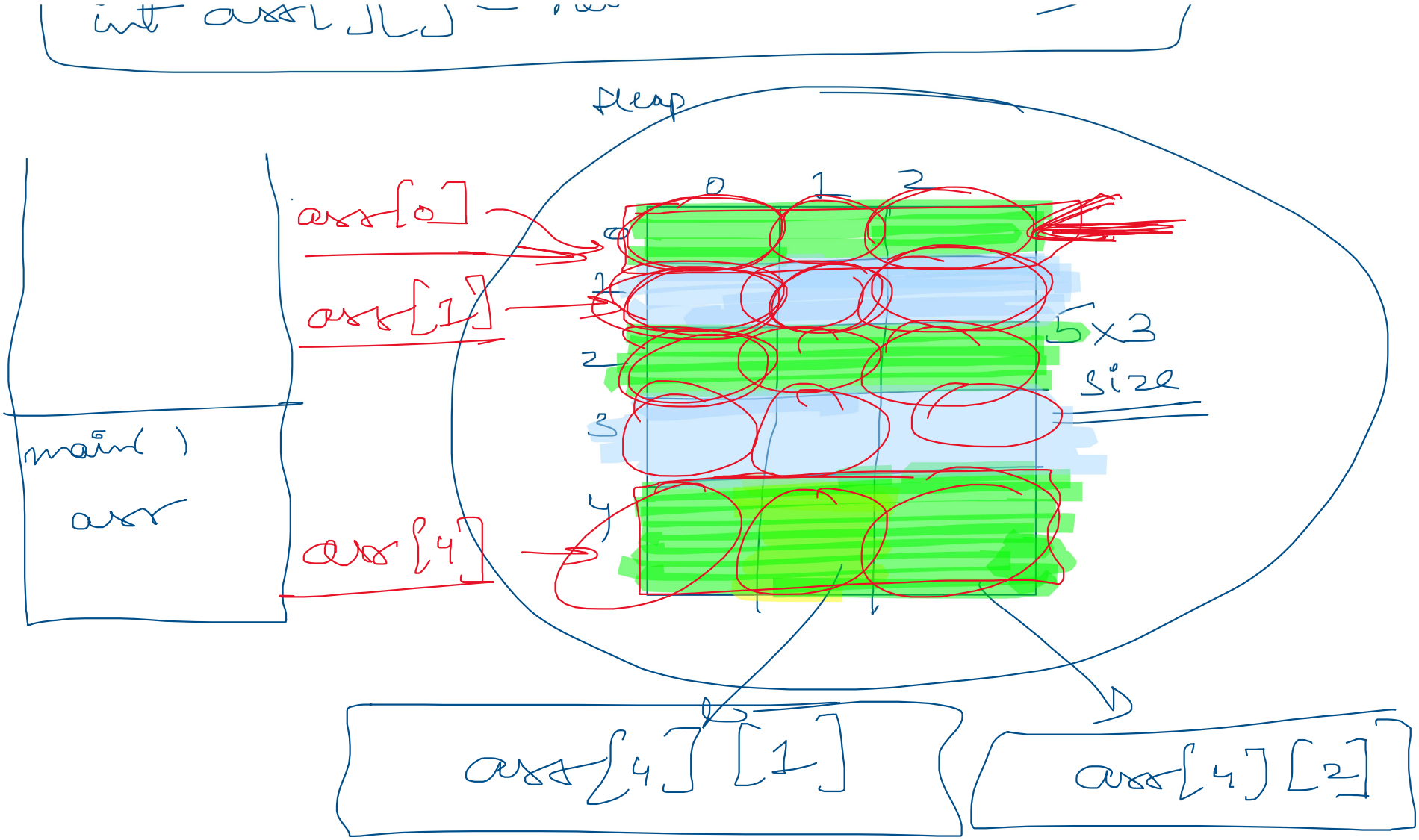
r x c Matrix

5 x 3

m x n Matrix

Index of last Cell

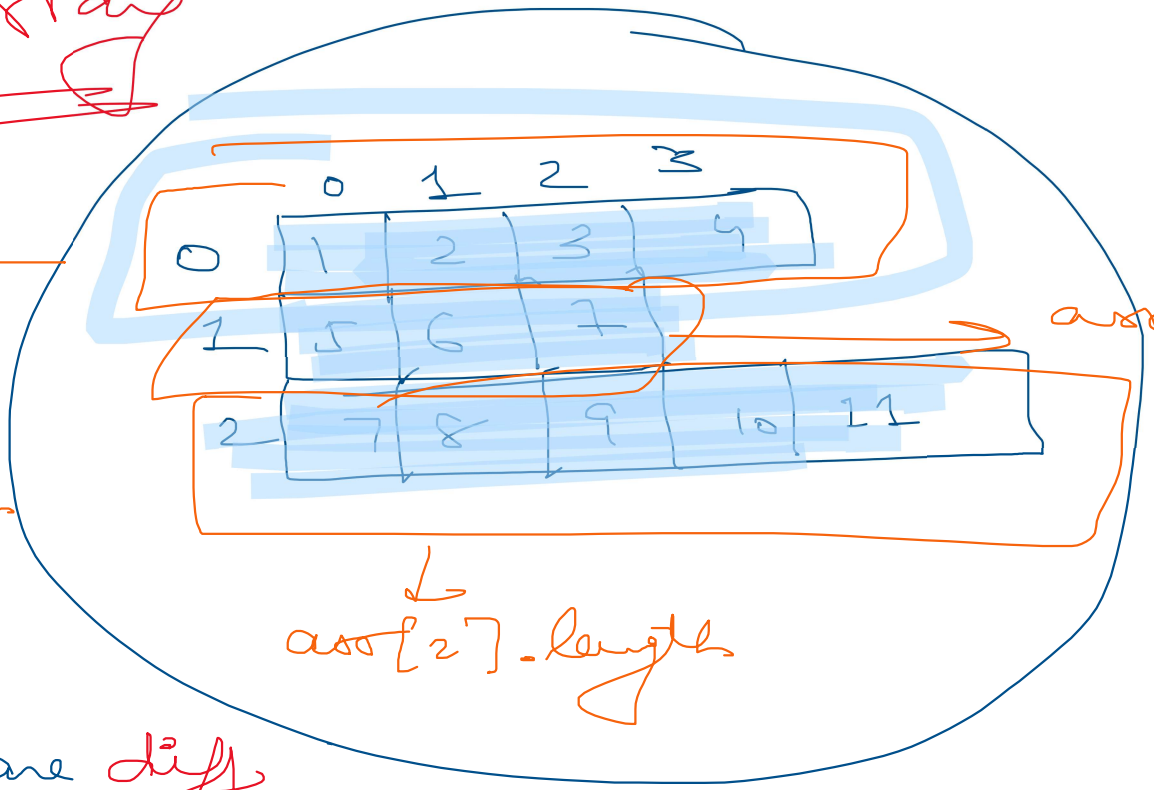
int [r][c];



arr.length → 5 → No. of rows

arr[0].length → 3 → No. of columns

Jagged Array

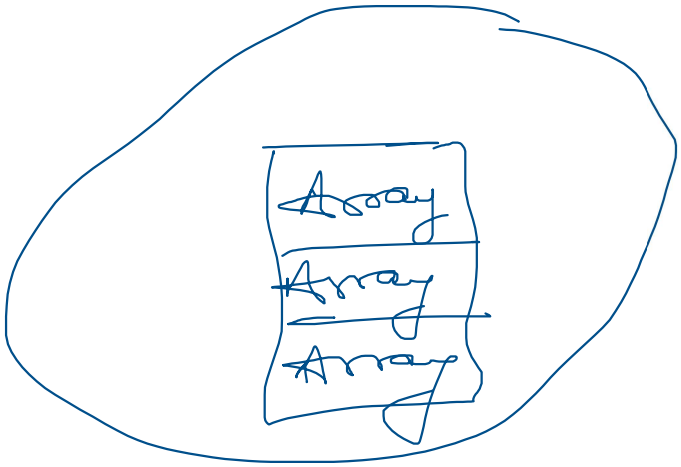


Columns are diff

```
int arr[][] = { {1, 2, 3, 4},
                {5, 6, 7},
                {7, 8, 9, 10, 11} };
```

```
int arr[][] = new int[3][];
```

Fixed Rows




```
arr[0] = {1, 2, 3, 4};
arr[1] = {5, 6, 7};
arr[2] = {8, 9, 10, 11};
```

Scanner

next

1 word

CipherSchools

Hello

Cursor

nextLine();

Pick complete line

CipherSchools Hello

← Cursor

4

~~A B~~

Hello

How

Are

Separate line

Mixed Inputs

Pick complete line using

next line ← parse according