array

=> int age;

int a;
int b;
int c;
int d;
int e;

int a, b, c, d, e, f;

int a, b, c, d, e, f, --- z, aa, ab;

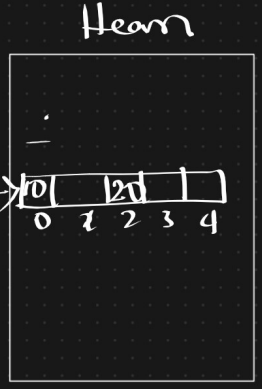
---

array

=> treated as an Object

=> Heap area

=> 5 students :-



int[] ar = new int[5];

int ar[] = new int[5];

ar[0] = 10; ar[2] = 20;

S.o.p(ar[2]); 20;

int[] a = new int[5];

a[0] = 10;
a[1] = 20;
a[2] = 30;
a[3] = 40;

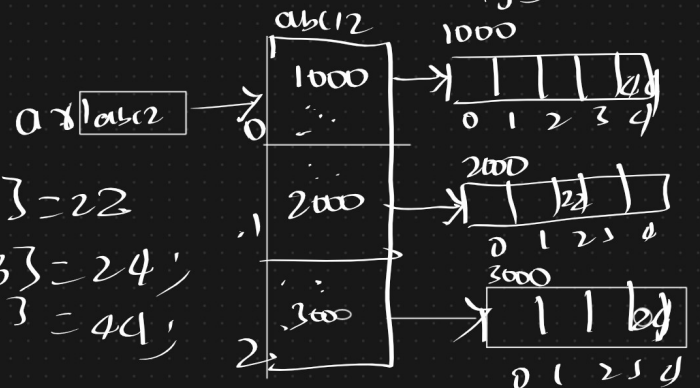
int[] a = {10, 20, 30, 40};

5 student in 3 diff classrooms.

classes	students
0	=> 5
1	=> 5
2	=> 5

```
int [][] ar = new int[3][5];
```

(i) (j)



=> 2D Regular array ar.length => 3

ar[0].length => 5

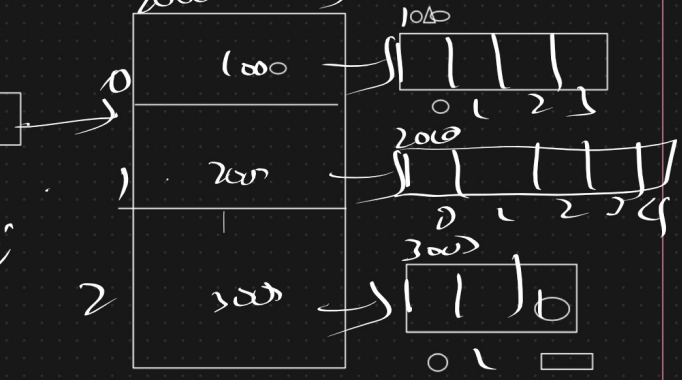
ar[1].length => 5

classes	Student
0	4
1	5
2	3

2 Jagged array

ar[i].length

```
int[][]ar= new int[3][];
ar[0]=new int[4];
ar[1]=new int[5];
ar[2]=new int[3];
ar[2][3]=10;
```



school	classes	Student
0	0	4
	1	4
	2	4
1	0	4
	1	4
	2	4

int[][][]ar=new int[2][3][4];

school	classes	students
0	0	4
	1	3
1	0	5
	1	3
	2	2

int[][][]ar=new int[2][][];

ar[0]=new int[2][];

ar[1]=new int[3][];

ar[0][0]=new int[4];

ar[0][1]=new int[3];

ar[1][0]=new int[5];

ar[1][1]=new int[3];

ar[1][2]=new int[2];

3D Jagged array is irregular

=> int[3]ar; (BufferOverRun problem)

ar[0]=10

ar[1]=20

ar[2]=30

ar[3]=40

4->4

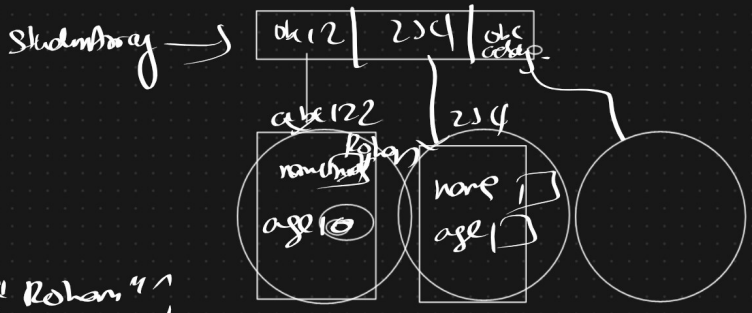
4+4=16

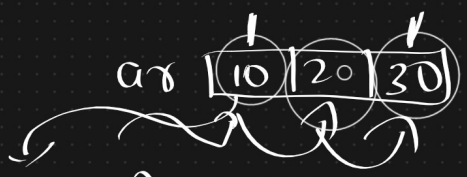
```
int [] ar = new int[3];
```


```
ar[0]=10;
ar[1]=20;
ar[2]=30;
ar[3]=40;
```

```
class Student
{
    String name;
    int age;

}
public class LaunchAR4 {

    public static void main(String[] args) {
        Student []studentArray=new Student[3];

        studentArray[0]=new Student();
        studentArray[1]=new Student();
        studentArray[2]=new Student();
    }

}
```

studentArray[0].name = "Rohan";






```
for(int a : ar)
```

a → 10

4 X 3 => 12 Bytes

RAM

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