

Arrays → Collection of homogenous data type.



Note: Object always heap mai hi create hota hai.

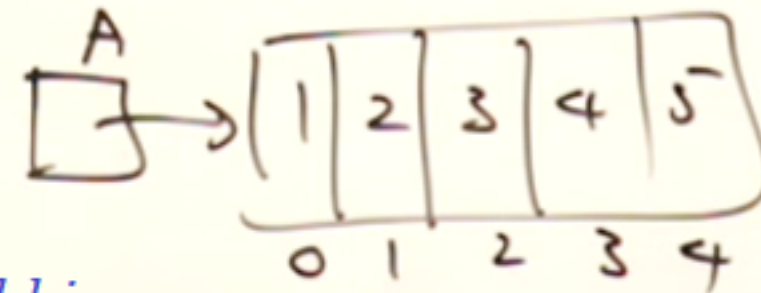
```
int A[] = new int[5];
```

Reference.                      Object

Way to initialize array in java

```
System.out.println(A.length);
```

```
int A[] = {1, 2, 3, 4, 5};
```



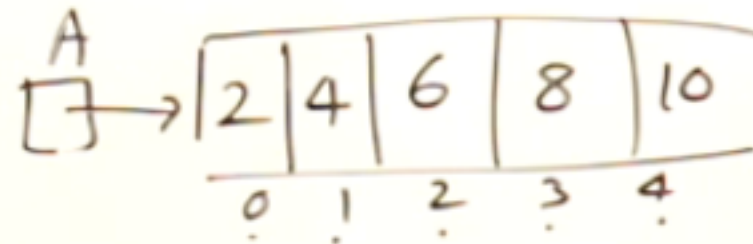
Ø. In-built property of java ya hota ha ki jab bhi "arrayname.length" likhta ha to array ka size pta chl jata hai.

# Arrays

- For each loop

◦ Read as, for each 'x' in 'A'

int A[] = {2, 4, 6, 8, 10}



for(int x : A)

{  
    s.o.p(x);  
}

for(int i=0; i < A.length; i++)  
{  
    s.o.p(A[i]);  
}

for(int i=A.length-1; i >= 0; i--)  
{  
    s.o.p(A[i]);  
}

- In java, we use "for - each loop" in place of "for loop" for accessing the array elements.

- In "for - each loop" hama reverse mai print nahi kar sakta hai mtlb ise mai print hona "0" sa start hota hai aur last tak chلتa hai.

- "for each loop" ka help sa ham sirf value read kar sakta hai. Usa update karna ka liya hma "for loop" ka use karna hota hai.

## 2D Array

A

0	1	2	3
1	2	4	6
2	3	5	7

	0	1	2	3
0				
1				
2				

- Way to create access 2D Array:

\* `int A[][] = new int[3][4];` → Row → Column

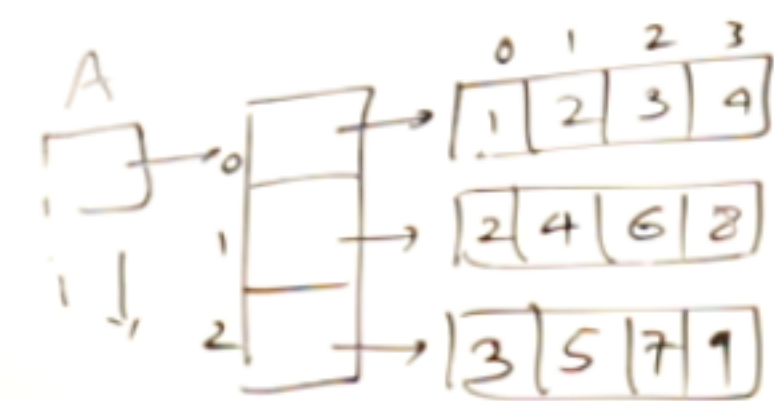
\* `int A[][] = { {1, 2, 3, 4}, {2, 4, 6, 8}, {3, 5, 7, 9} };`

\* `int A[][];`  
`A = new int[3][4];`

- All array element create in heap.

• Way to access 2D Array element:

2D Array →



Mth. 1: using for - loop

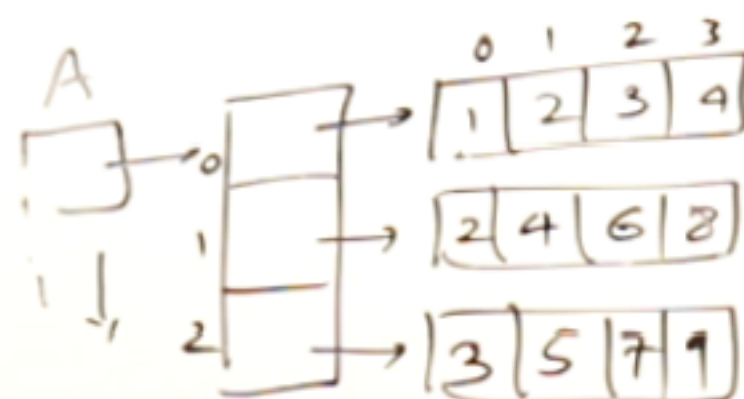
```
for(int i=0; i < A.length; i++)
```

```
{
    for(int j=0; j < A[i].length; j++)
```

```
{
    System.out.println(A[i][j]);
```

```
}
    System.out.println("\n");
}
```

Mth. 2: using for each loop



```
for(int x[]: A)
```

```
{
    for(int y: x)
```

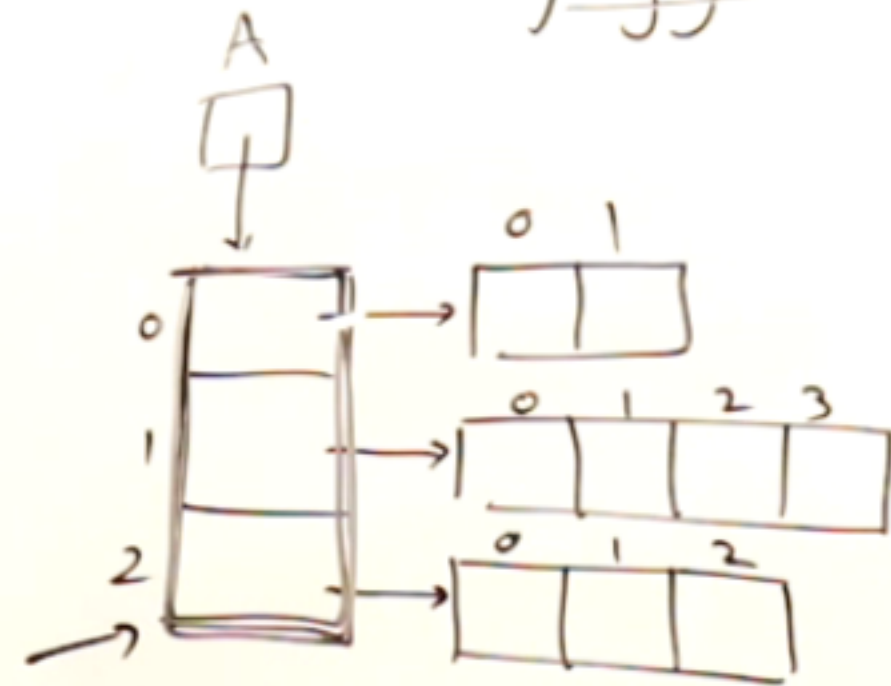
```
{
    System.out.println();
```

```
}
```



## 2D Array

### Jagged Array



	0	1	2	3
0				
1				
2				

- Jagged array wo hota hai jise mai har row mai different no. of colum ho.

- Only interview wagra mai logic use hota hai. Real life mai koi imp. use nahi hai iska.

```
int A[][];  
A = new int[3][];  
A[0] = new int[2];  
A[1] = new int[4];  
A[2] = new int[3];
```