

# Arrays

- Array is the continuous block of memory which is used to store multiple objects.
- **Characteristics Of Arrays**
- The size of array must be defined at the time of declaration.
- Once declared, the size of an array can't be modified.
- Hence Array is known as fixed size
- In an array we can access the elements with the help of an index or subscript. It is an integer number that starts from 0 and ends at length of the array-1.
- In an array we can store only homogenous type value. It is also known as homogeneous collection of an Object.

## **Note:**

- In java Array is an Object

# **Syntax to declare an Array**

- `datatype[] variable;`

OR

`datatype variable[];`

## **Example:**

- `int a[]`—Single dimension array reference variable of int type.
- `float f[]`-- Single dimension array reference variable of float type.
- `String s[]`-- Single dimension array reference variable of String type.

## **Instantiating an Array**

### **Syntax to instantiate an array**

`new datatype[size];`

- **Example:**

new int[5];

0
0
0
0
0

new String[5];

null
null
null
null
null

new boolean[5];

false
false
false
false
false

**Note:**

Once the array is instantiated it is assigned with default values

**Accessing Elements of Array:**

- We can access an elements from an array with the help of array reference variable and index.
- **Syntax:** array\_ref\_variable[index];