

Arrays in Java

1.What do you mean by an array?

An array is a collection of similar data elements stored at contiguous memory locations. It is the simplest data structure where each data element can be accessed directly by only using its index number.

2.How to create an array?

To create an array, define the variable type with square brackets:

```
String[] books;
```

3.Can we change the size of an array at run time?

The size of the array is determined at the time of its creation or, initialization once it is done you cannot change the size of the array.

4.Can you declare an array without assigning the size of an array?

There are two ways to declare string array - declaration without size and declare with size.

5.What is the default value of an array?

java will assign the default value 0 to each element of the array in the case of an int array. Similarly, in the case of a boolean array, it will be false, in the case of a String array the default value is null in java, and in the case of a char array, the default value is Unicode (\u0000).

6.What is a 1D with an example.

A one-dimensional array or 1D array is the list of variables of the same data type stored in the contiguous memory locations. We can access these variables of a 1-d array by an index value in square brackets followed by name of the array.

Example:

```
class Tarray{
    public static void main(String args[]){
        int a[]=new int[3];
        a[0]=10;
        a[1]=20;
        a[2]=70;

        for(int i=0;i<a.length;i++)
            System.out.println(a[i]);
    }
}
```

7. Write a program on a 2D array.

```
class Tarray{
    public static void main(String args[]){
        int arr[][]={
            {1,2,3},
            {2,4,5},
            {4,4,5}};
        for(int i=0;i<3;i++){
            for(int j=0;j<3;j++){
                System.out.print(arr[i][j]+" ");
            }
            System.out.println();
        }
    }
}
```