

Q1. What do mean by an Array?

Ans. An array is a group of variables of the same data-types each element in the array is assigned a unique number to identify each element uniquely; this is called **index or subscript**. Or we can say a single variable holding a homogenous value and to access each element we use the index value of that element.

Q2. How to create an Array?

Ans. Every array in java is an array hence we create array using **new** operator

Two steps to create an array:

->Declare the array variable.

->Define the array

Syntax: **datatype array_variable = new data-type(size);**

Q3. Can we change the size of an array at run time?

Ans. No, we can not change the size of the array during runtime, the size of the array is determined at the time of its creation.

Q4. Can you declare an array without assigning the size of an array?

Ans. Yes, we can declare an array without assigning the size.

Example:

```
Public class Array{
    public static void main(String args[])
    {
        int arr[]={1,2,3};

    }
}
```

Q5. What is the default value of Array?

Ans. As we know that in java an array is an object hence it gets allocated in the **heap area**. So JVM sets a default value for an array i.e. 0 value for each element.

```
public class Array {
    public static void main(String args[])
    {
        int arr[]=new int[5];

        for( int v:arr )
            System.out.print(v);
    }
}
```

```
}
```

Output: 00000

Q6. What is a 1D array with an example?

Ans. A 1D array is the simplest form of array in which elements are stored in a sequential order and can be accessed using the **index value** of that particular element.

```
import java.util.*;
public class Array {
    public static void main(String args[])
    {
        Scanner scan= new Scanner(System.in);
        int arr[]=new int[5];
        System.out.println("Enter array elements");
        for(int i=0;i<5;i++)
        {
            arr[i]=scan.nextInt();
        }
        System.out.print("Array is: ");
        for( int v:arr )
            System.out.print(v);
    }
}
```

Output:

Enter array elements

1

2

3

4

5

Array is: 12345

Q7. Write a program on a 2D array?

Ans. Program to fetch user input for 3X3, 2D array and displaying the elements :

```
import java.util.*;
public class Array {
    public static void main(String args[])
    {
        Scanner scan= new Scanner(System.in);
        int arr[][]=new int[3][3];
```

```
System.out.println("Enter 2D array elements");
for(int i=0;i<3;i++)
{ for(int j=0;j<3;j++)
    {arr[i][j]=scan.nextInt();
    }
}
System.out.println("Array is:");
for( int v[]:arr)
{
    for(int a: v)
    {
        System.out.print(a);
    }
    System.out.println();
}
}
```

}

Output:

Enter 2D array elements

1

2

3

4

5

6

7

8

9

Array is:

123

456

789