

Array in Java

* Assignment Questions : 01 *

* Q.1 * What do you mean by an Array?

* Ans 1 * It refers to Index collection of fixed no of homogeneous data elements.

* Single Variable holding multiple values which improves readability of the program.

* Q.2 * How to Create an Array?

* Ans: 2 * Array Declarations

1. Single Dimension Array
Declaration of array

• `int[] a;` // recommended to use as variable is separated from type.

• `int a[];`

• `int [7]a;`

• `int [6]a;` // Compile time error. we can not specify the size.

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



Ans * In Java programming the size of an array is fixed upon creation and cannot be changed during run time.

Q.4 * Can we declare an array without assigning the size of array?

Ans:4 * ~~Allowxx~~ Always we declare an array without assigning the size of array.

- Declaration without specifying size

```
int[] a;
```

- Initialization with a specifying size.

```
int[] b = new int[6];
```

Q.5 * what is the default value of Array?

Ans:5 * Since arrays are treated as objects internally based on type of data we keep inside array JVM will keep default values

Ex

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

```
System.out.println(a[0]) // 0
```

Q.6 what is a 1D array with an example



~~Q.6~~ 1D Array is a data structure that stores elements of the same data type in linear sequence. It is declare and initialize with the single subscript or index.

~~example~~

```
class Array1D
{
    public static void main(String[] args) {
        int[] a = {2, 4, 6, 8, 10};
        System.out.println("element at 0 index" + a[0])
    }
}
```

output

element at 0 index 2

~~Q.7~~ write a program on a 2D array?

```
class Array2D
{
    public static void main(String[] args) {
        int sum = 0;
        int[] b = {1, 2, 3, 4, 5};
    }
}
```

`int[][] a = new int[3][2];`

`a[0][0] = 1;`

`a[0][1] = 2;`

`a[1][0] = 3;`

`a[1][1] = 4;`

`a[2][0] = 5;`

`a[2][1] = 6;`

`for (int i = 0; i < 2; i++)`

`{`
`for (int j = 0; j < 1; j++)`

`{`

`System.out.println(a[i][j] + " ");`

`}`

`}`

output

1 2

3 4

5 6