

1. What do you mean by an Array?

An array is basically an object which contains elements of a similar data type as it is used to store multiple values in a single variable instead of declaring separate variables for each variable. The elements of an array are stored in a memory location. Array in java is index based the first element of the array is stored at the index 0, second element is stored at 1 index and so on.

2. How to create an array?

To create an array in java firstly we have to declare an array in Java, to declare `dataType[] arrayName;` firstly we have to specify the data type (eg int, float etc) followed by square brackets `[]` and then comes the user specified array name.

The second step for the creation of the array is to instantiate an array as when we create an array only the reference of the array is created hence at the time of array declaration we can't specify the array size.

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

No, we can't change the size of an array at the runtime as the size of the array is determined at the time of its creation or initialisation.

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

Yes you can declare an array without assigning the size of an array. Ex: `int[] a;` but you can't use it before initializing it. This array 'a' doesn't exist anywhere in the memory. The compiler only knows that 'a' will be an array. Whenever you write a new keyword after an array declaration that actually allocates memory to the array and then the array starts existing.

5. What is the default value of Array?

If we don't assign values to array elements and try to access them the compiler does not produce an error as in the case of simple variables. For boolean datatype the default value is False, for int datatype the default value is 0; for double datatype the default value is 0.0, for String datatype the default value is null.

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

A one dimensional array can be visualized as a single row or a column of array elements that are represented by a variable name and whose elements are accessed by index values.

Ex: `int marks[] = {90, 56.89};`