Array is an object that contains elements of similar data type. It is a data structure where we store similar elements. We can store only fixed set of elements in a java array. Array in java is index based, first element of the array is stored at 0 index

Advantage of Array

Code Optimization: It makes the code optimized, we can retrieve or sort the data easily. Random access: We can get any data located at any index position.

Disadvantage of Java Array
Size Limit: We can store only fixed size of elements in the array. It doesn't grow its size at runtime. To solve this problem, **collection** framework is used in java.

Declaration of Arrays:
type array-name[ ];
Here, type declares the base type of the array. The base type determines the data type of each element that comprises the array. Thus, the base type for the array determines what type of data the array will hold. For example, the following declares an array named month_days with the type "array of int":

```
int month_days[];
```

Creation of Arrays:

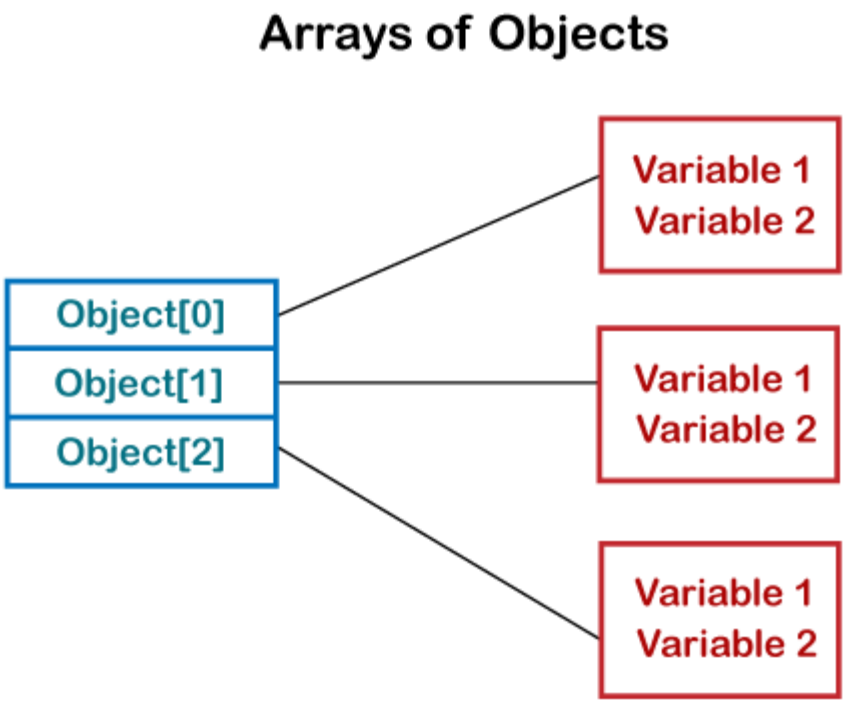
Syntax:

data-type arrayname[ ] = new datatype[size];

EX. int a[ ]=new int[5];

Initialization of Arrays:

Data-type arrayname[ ]={list of values};



Syntax :

1. ClassName obj[]=new ClassName[array_length]; //declare and instantiate an array of objects

   ClassName[] objArray;

   ClassName objeArray[];

int a[];

Suppose, we have created a class named Employee. We want to keep records of 20 employees of a company having three departments. In this case, we will not create 20 separate variables. Instead of this, we will create an array of objects, as follows.

1. Employee department1[20];
2. Employee department2[20];
3. Employee department3[20];