

Arrays:-

A Data Structure that holds a fixed numbers of Values of a Single type. Each Value in an array is called an element and is identified by an index. It is used to Store multiple Values in Single Variable.

One - Dimensional Array:

An array that stores a list of elements in a Single row. Used to store sequence of Values.

Syntax: `int marks[] = new int [50];`

Two - Dimensional Array:

An array of arrays, effectively forming a grid or table with rows and columns.

Syntax: `int marks [][] = new int [3][50];`

It is used to form matrix like structures

Multi - Dimensional Array:-

An array with more than two dimensions.

Syntax: `int marks [] [] = new int [3][4];`

Used in More complex data Structures.

Algorithm:

1. Define an array marks and initialize it with values {50, 60, 70, 80, 90}.
2. Print the element at index 3 of the array marks.