ARRAYS

An array is defined as the collection of similar type of data items stored at contiguous memory locations. Arrays are the derived data type in C programming language which can store the primitive type of data such as int, char, double, float, etc. It also has the capability to store the collection of derived data types, such as pointers, structure, etc.

Properties of Array

The array contains the following properties.

- o Each element of an array is of same data type and carries the same size, i.e., int = 4 bytes.
- o Elements of the array are stored at contiguous memory locations where the first element is stored at the smallest memory location.
- o Elements of the array can be randomly accessed since we can calculate the address of each element of the array with the given base address and the size of the data element.

Advantage of Arrays

1) Code Optimization: Less code to the access the data.

2) Ease of traversing: By using the for loop, we can retrieve the elements of an array easily.

3) Ease of sorting: To sort the elements of the array, we need a few lines of code only.

4) Random Access: We can access any element randomly using the array.

TYPES OF C ARRAYS:

There are 3 types of C arrays. They are,

1. One dimensional array
2. Two dimensional array
3. Multi dimensional arrays