ARRAY

It is the collection of similar data which is stored in memory location in a single variable. It is derived data type of C which is constructed from fundamental data type of C language.

Syntax:

data type array_name [size];

For example:

int age [10];

Advantage:

a. Easy to sort and indexing data.
b. Easy to retrieve data when ever required.
c. Easy to store number of data in single variable.
d. It is easier for handling similar types of data in a program.

Disadvantage:

a. Once the program decide the size or memory, it is not possible to increase and decrease the size or memory of program.
b. It is not possible to hold dissimilar types of data in a program.
c. It is difficult to visualize the multi dimensional array.

Initializing of Array:

It can be initialized into two ways. They are as follows:

1. Initializing of Array one by one:
   For example: int age [5];
   Age [0] = 25
   Age [1] = 20
   Age [2] = 22
   Age [3] = 23
   Age [4] = 30

2. Initializing of Array at once:
   For example: int age [5] = {25, 20, 22, 23, 30}

Types of Array:

There are two types of Array. They are:

a) One Dimensional Array
b) Two Dimensional Array

a) One Dimensional Array:

Array having only one subscript value is known as one dimensional array. It consists only one row or column.

Syntax:

data type array_name [size];

For example:

int age [10];

b) Two Dimensional Array:

Array having more than one subscript value is known as two dimensional array. It consists both row and column.

Syntax:

data type array_name [size][size];

For example:

int age [10][10];

Differences between One Dimensional Array and Two Dimensional Array:

One Dimensional Array	Two Dimensional Array
1. It has only one subscript value.	1. It has more than one subscript value.
2. It consists only one row or column.	2. It consists more both row and column.
3. Syntax: data type array_name [size];	3. Syntax: data type array_name[size][size];
4. For example: int age [10];	4. For example: int age [10][10];