**DATA STRUCTURES**

**ARRAYS:**

Array is a collection of elements in a contiguous memory location.

In array multiple elements of same data type are stored using a single variable.

Arrays hold values of the same type at contiguous memory locations.

SYNTAX:

Datatype arr\_name[arr\_size];

EXAMPLE:

int a[5];

ADVANTAGES:

* Easy to access elements
* Implementation is easy
* Read & write operation takes constant time O(1)
* Store multiple elements of the same type with one single variable name

DISADVANTAGES:

* Insertion and deletion of element is difficult and also it take much time. O(n).
* Wastage of memory if the size of array is smaller than the declared array size
* Inserting element to a complete array is difficult as we need to create a new array and copy all the element of previous array to the new array

TIME COMPLEXITY:

