**INTRODUCTION**

WHAT ARE DATA STRUCTURES ?

Data Structures are a way to efficiently store, organize and manipulate data in memory. They are used to optimize operations like insertion, deletion, searching, sorting etc on data. There are various Data Structures available of which some commonly used ones are:

1. Arrays: It is used to store a collection of elements in contiguous memory locations. Array elements can be accessed in constant-time via index of the elements.
2. Linked List: It is used to store data using nodes wherein each node contains information and a pointer(reference) to the next node in the sequence. Linked Lists do not store data in contiguous memory locations and hence makes insertion and deletion of data relatively faster than arrays in case of large datasets.
3. Stack: It uses the Last In First Out (LIFO) approach and is used for purposes such as function callback, expression evaluation etc.
4. Queue: It uses First In First Out (FIFO) approach and is used for Breath First Search, backtracking etc.