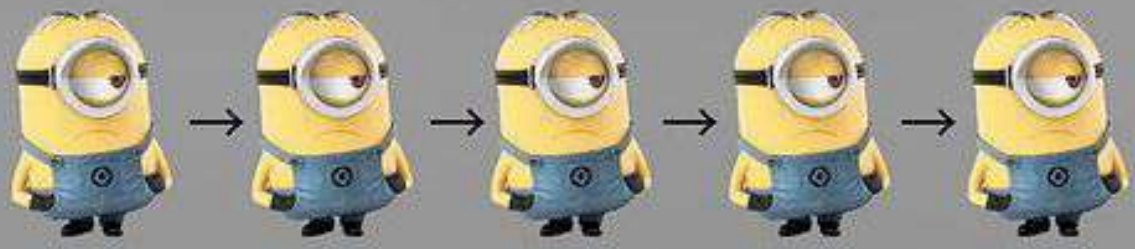
LINKED LIST

- A linked list is a non-sequential collection of data items. It is a dynamic data structure.
- The data items in the linked list are not in consecutive memory locations. They may be anywhere, but the accessing of these data items is easier as each data item contains the address of the next data item.



Advantages of linked lists:

1. Linked lists are dynamic data structures. i.e., they can grow or shrink during the execution of a program.
2. Linked lists have efficient memory utilization. Here, memory is not pre-allocated. Memory is allocated whenever it is required and it is de-allocated (removed) when it is no longer needed.
3. Insertion and Deletions are easier and efficient.
4. Many complex applications can be easily carried out with linked lists.

Disadvantages of linked lists:

1. It consumes more space because every node requires an additional pointer to store address of the next node.
2. Searching a particular element in list is difficult and also time consuming.
3.Random access is not possible due to dynamic memory allocation.