Linked List

Additional Document

Linked List is a type of linear data structure where you can store numerous types of variables under a single skeleton. So basically each Singly Linked list node has a minimum of 2 parts. Data part and Address part of the node. The data part will hold the information about the node itself and the address part will point to the address of the next node.

Here you will be seeing the implementation of singly linked list data structure using python. Let's go through the codes for the following problem statements.

1. **Initialization of Linked List**: Initialize Linked list by using a class and object. This part will simply declare the nodes and print them accordingly.
2. **Insertion in Linked list**: In this, you will learn about how to insert a new node into the existing linked list. Also how to keep increasing the size of the linked list.
3. **Deletion in Linked List:** In this, you will learn how to delete and existing element along with its node from the linked list. This problem consists of another problem where you need to find whether the element you want to delete exists in the Linked List or not. The running time complexity for this algorithm is O(n).
4. **Searching Linked List**: In this, you will be learning about how to traverse through a linked list to find an element in the Linked list. This will take O(n) time to find an element in the linked list.