

Singly Linked List

Objective

The objective of this lab is to understand List ADT using Linked list implementation.

Task

Create a linked list and implement methods to insert item at the end of the list and display all items in the list. Use constructor as needed.

Procedure

- The implementation of Linked List uses a pair of classes. One describes the node and second represents the collection of nodes as a list structure. Implement following list of methods for the linked list class. Once you successfully implemented the above task, convert it to generic implementation.
- Convert your linked list into generic class to make it work for any type of data.

```
class Node {
    int data;
    Node next;

    Node(int d){
        data=d;
        next = null;
    }
}

class Linkedlist {
    Node head;

    Linkedlist(){ head = null; }

    public void insert(int d){ // code } // insert new node at the end of list.

    public Boolean find(int d){ // code } // find a node with value d

    public void clear(){ // code } // make list empty

    public void delete(int d){ // code } // delete a node with value d (first
                                     occurrence)

    public String toString(){ // code } // returns a string with comma node values.

    public void insertBefore(Node n, int d){ // code }
}
```

