Implementing Stack (using LL).

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

```
class My_Stack
{ Node head;
  int size;
  MyStack(){
    head = null
    size = 0
  }
  int size(){
    return size
  }
  boolean isEmpty()
  { return (head == null); }
  void push(int x)
  { Node temp = new Node(x);
    temp.next = head;
    size++;
  }
  int pop()
  { if(head == null) return -1;
    int res = head.data;
    head = head.next;
    size--;
    return res;
  }
```

MyStack S1 = new MyStack().

head = null, size = 0

S.push(10)

10 → null, size = 1

S.push(20)

20 → 10 → null size = 2

S.pop()

10 → null size = 1.

Applications of Stack DS.

1. function calling another function.
2. Balanced Parantheis.
3. Infix, Prefix & Postfix conversions.
4. Reversing items.
5. Undo/Redo (or) forward/Backward.
6. Stock Span Problem