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#include <bits/stdc++.h>
using namespace std;

class Node {

public:
    int value;
    Node*next;
    Node * prev;

    Node (int val){

        value =val;
        next=NULL;
        prev=NULL;
    }
};

class Stack {

    Node * head;
    Node * top;
    int count = 0;

public:

    Stack(){
        head =NULL;
        top = NULL;
    }
    void push(int val){
        Node *newNode = new Node (val);

        if (head== NULL){
            head = top = newNode;
            count ++;
            return;
        }

        top->next=newNode;
        newNode->prev = top;
        top = newNode;
        count++;
    }
}

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int pop (){
    Node * dellNode;
    dellNode=top;
    int chk = -1;
    if (head == NULL){
        cout<<" Stack Undrflow "<<endl;
        return chk;
    }
    if (top == head){
        head = top = NULL;
    }

    else {
        top = dellNode->prev;
        top->next = NULL;
    }

    chk = dellNode->value;
    delete dellNode;
    count --;
    return chk;
}

bool empty (){
    if (head== NULL) return true;
    else return false;
}

int Top(){
    int chk;
    if (top == NULL){
        cout<<" There is no element in the top"<<endl;
        chk=-1;
    }
    else {
        chk = top->value;
        return chk;
    }
}

int size(){

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    return count ;
}
};

int main() {

    Stack st;

    st.push(1);
    st.push(2);
    st.push(3);

    while (!st.empty()){
        cout<< st.pop()<<endl;
    }
    cout<<st.size()<<endl;

    if (!st.empty())

    {
        //cout<<st.Top<<endl;
    }
    return 0;
}
```