Stack using Linked List

```
#include <iostream>
using namespace std;
#include<stdlib.h>

struct list {
    int data;
    struct list *link;
};

typedef struct list *NODE;

NODE getnode() {
    NODE x;
    x = (NODE) malloc(sizeof(NODE));
    return x;
}

NODE insertNode(NODE first, int num) {
    NODE temp;
    temp = getnode();
    temp -> data = num;
    temp -> link = first;
    return temp;
}

NODE deleteNode(NODE first) {
    NODE temp;
    if (temp == NULL) {
        cout<<"Linked list underflow\n";
        return first;
    } else {
        cout<<"The deleted element is: "<<first -> data;
        temp = first -> link;
        free(first);
        return temp;
    }
}

void display(NODE first) {
    NODE temp;
```

```
    if (first == NULL) {
        cout<<"Linked list is empty\n";
    } else {
        temp = first;
        while (temp != NULL) {
            cout<<temp -> data<<" -> ";
            temp = temp -> link;
        }
        cout<<"NULL";
    }
}

int main() {
    int ch, num;
    NODE first = NULL;
    while (1) {
        cout<<"\nStack Menu\n1. Insert\n2. Delete\n3. Display\n4. Exit\nEnter your choice: ";
        cin>>ch;

        switch (ch) {
            case 1: cout<<"Enter the element to be inserted: ";
                    cin>>num;
                    first = insertNode(first, num);
                    break;
            case 2: first = deleteNode(first);
                    break;
            case 3: display(first);
                    break;
            case 4: exit(0);
            default: cout<<"Invalid choice";
        }
    }
    return 0;
}
```