**3. program to Implement a stack using singly linked list**

#include <bits/stdc++.h>

using namespace std;

struct Node {

int data;

struct Node\* link;

};

struct Node\* top;

void push(int data)

{

struct Node\* temp;

temp = new Node();

if (!temp) {

cout << "\nHeap Overflow";

exit(1);

}

temp->data = data;

temp->link = top;

top = temp;

}

int isEmpty()

{

return top == NULL;

}

int peek()

{

// check for empty stack

if (!isEmpty())

return top->data;

else

exit(1);

}

void pop()

{

struct Node\* temp;

if (top == NULL) {

cout << "\nStack Underflow" << endl;

exit(1);

}

else {

temp = top;

top = top->link;

temp->link = NULL;

free(temp);

}

}

void display()

{

struct Node\* temp;

if (top == NULL) {

cout << "\nStack Underflow";

exit(1);

}

else {

temp = top;

while (temp != NULL) {

// print node data

cout << temp->data << " ";

// assign temp link to temp

temp = temp->link;

}

}

}

int main()

{

push(11);

push(22);

push(33);

push(44);

display();

cout << "\nTop element is %d\n" << peek();

pop();

pop();

display();

cout << "\nTop element is %d\n" << peek();

return 0;

