WEEK-06

Implementation of Stacks using Linked List

#include<stdio.h>

#include<stdlib.h>

struct NODE{

int data;

struct NODE \*link;

};

typedef struct NODE node;

node \*new,\*top=NULL,\*temp;

void push();

void pop();

void display();

void main()

{

int choice;

while(1)

{

printf("1.Push \n 2.Pop \n 3.Display \n 4.Exit \n");

printf("Enter the choice:");

scanf("%d",&choice);

switch(choice)

{

case 1: push();

break;

case 2:pop();

break;

case 3: display();

break;

case 5: exit(0);

break;

default:printf("Wrong Choice");

}

}

getch();

}

void push()

{

new=(node\*)malloc(sizeof(node));

printf("enter an element to be pushed:");

scanf("%d",&new->data);

if(top==NULL)

{

top=new;

top->link=NULL;

}

else

{

new->link=top;

top=new;

}

}

void pop()

{

int del;

if(top==NULL)

{

printf("stack is empty\n");

return;

}

del=top->data;

printf("poped element is %d\n",del);

top=top->link;

}

void display()

{

if(top==NULL)

{

printf("stack is empty\n");

return;

}

temp=top;

while(temp!=NULL)

{

printf("%d\n",temp->data);

temp=temp->link;

}

}

Output:

