Program

#include <stdio.h>

#include<stdlib.h>

typedef struct node

{

int data;

struct node \* next;

}node;

void push();

void pop();

void display();

node \*start=NULL;

int main()

{

int ch;

do

{

printf("\n\n \*\*\*\*\*MAIN MENU \*\*\*\*\*");

printf("\n 1: PUSH");

printf("\n 2: POP");

printf("\n 3: DISPLAY");

printf("\n 4: EXIT");

printf("\n\n Enter your option : ");

scanf("%d", &ch);

switch(ch)

{

case 1:

push();

break;

case 2:

pop();

break;

case 3:

display();

break;

}

}while(ch !=4);

return 0;

}

void push()

{

int val;

struct node \*ptr = (struct node\*)malloc(sizeof(struct node));

if(ptr == NULL)

{

printf("not able to push the element");

}

else

{

printf("Enter the value");

scanf("%d",&val);

if(start==NULL)

{

ptr->data = val;

ptr -> next = NULL;

start=ptr;

}

else

{

ptr->data = val;

ptr->next = start;

start=ptr;

}

printf("Item pushed");

}

}

void pop()

{

int item;

node \*ptr;

if (start == NULL)

{

printf("Underflow");

}

else

{

item = start->data;

ptr = start;

start = start->next;

free(ptr);

printf("%d popped\n",item);

}

}

void display()

{

int i;

struct node \*ptr;

ptr=start;

if(ptr == NULL)

{

printf("Stack is empty\n");

}

else

{

printf("\*\*\*\*STACK\*\*\*\*\*\n");

while(ptr!=NULL)

{

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

ptr = ptr->next;

}

}

}

Output

