//Stack Program – Visakh Bobby – S3R2 - 34

#include<stdio.h>

int top;

int Stack[100];

void PUSH(int Stack[],int max)

{

int item;

if(top>=max)

  printf("Stack Overflow, no element can be inserted.\n");

else

{

printf("Enter item to be inserted:\n");

scanf("%d",&item);

   top++;

   Stack[top] = item;

}

}

void POP(int Stack[])

{

  if(top==-1)

    printf("Stack Underflow , no element to be deleted\n");

  else

  {

int item= Stack[top];

   top--;

   printf("Element %d is deleted from stack\n",item );

  }

}

void Display(int Stack[])

{

if(top==-1)

printf("Stack is empty\n");

   else

   {

   printf("The elements in stack are:\n");

   printf("%d <- Top\n", Stack[top]);

   for(int i=top-1 ; i>=0 ; i--)

   printf("%d\n",Stack[i]);

}

}

void main()

{

top=-1;//top at -1 means no element is present

  int Max;

  int ch;

  printf("Enter the maximum number of elements:");

  scanf("%d",&Max);

   printf("Enter choice:\n");

   printf("1.PUSH\n");

   printf("2.POP\n");

   printf("3.DISPLAY\n");

   scanf("%d",&ch);

   while(ch >= 1 && ch <=3)

{

    switch(ch)

    {

      case 1 : PUSH(Stack,Max);

           break;

      case 2 : POP(Stack);

           break;

      case 3 : Display(Stack);

           break;

      default : printf("INVALID Choice\n");

     }

   printf("Enter another choice from 1-3: 1.PUSH\t 2.POP\t 3.Display\t 4.Exit\n");

   scanf("%d",&ch);

}

}

//End Of Program

**Output of code:** 