#include<stdio.h>

int stack[100],n,choice,top,element,i;

void push();

void pop();

void display();

int main()

{

top=-1;

printf("\n Enter the size of STACK[MAX=100]:");

scanf("%d",&n);

printf("\nSTACK OPERATIONS USING ARRAY");

printf("\n--------------------------------");

printf("\n 1.PUSH\n 2.POP\n 3.DISPLAY\n 4.EXIT");

do

{

printf("\nEnter the Choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

{

push();

break;

}

case 2:

{

pop();

break;

}

case 3:

{

display();

break;

}

case 4:

{

printf("\nEXIT POINT ");

break;

}

default:

{

printf ("\nPlease Enter a Valid Choice(1/2/3/4)");

}

}

}

while(choice!=4);

return 0;

}

void push()

{

if(top>=n-1)

{

printf("\nSTACK is over flow");

}

else

{

printf(" Enter a value to be pushed:");

scanf("%d",&element);

top++;

stack[top]=element;

}

}

void pop()

{

if(top<=-1)

{

printf("\nStack is under flow");

}

else

{

printf("\nThe popped elements is %d",stack[top]);

top--;

}

}

void display()

{

if(top>=0)

{

printf("\n The elements in STACK \n");

for(i=top; i>=0; i--)

printf("\n%d",stack[i]);

printf("\n Press Next Choice");

}

else

{

printf("\n The STACK is empty");

}

}