#include<stdio.h>

#define SIZE 5

int top =-1;

int stack[SIZE];

void push(int value)

{

if(top==SIZE-1)

printf("Stack is already Full\n");

else

{

stack[++top]=value;

printf("%d is pushed into the stack\n",value);

}

}

void pop()

{

if(top==-1)

printf("The stack is already empty\n");

else

{

printf("%d popped from the stack\n",stack[top--]);

}

}

void peek()

{

if(top==-1)

printf("The stack is already empty\n");

else

{

printf(" top element is %d \n",stack[top]);

}

}

void display()

{

if(top==-1)

printf("Stack is empty");

else

{

for(int i=0;i<=top;i++)

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

printf("\n");

}

}

int main()

{

int choice,value;

while(1)

{

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

printf("1.Push\n2.Pop\n3.Peek\n4.Display\n5.Exit\n");

printf("Enter the choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

printf("Enter the value to push:");

scanf("%d",&value);

push(value);

break;

case 2:

pop();

break;

case 3:

peek();

break;

case 4:

display();

break;

case 5:

return 0;

default:

printf("Invalid choice\n");

}

}

return 0;

}

