```
#include<stdio.h>
#include<stdlib.h>
#define size 5

void push();
void pop();
void peek();
void display();

int stk[size];
int top=-1;

main()
{
 int choice;
 do
 {
  printf("\n1.Push\n2.Pop\n3.Peek\n4.Display\n5.Exit\nEnter ur choice:");
  scanf("%d",&choice);
  switch(choice)
  {
   case 1:push();break;
   case 2:pop();break;
   case 3:peek();break;
   case 4:display();break;
   case 5:printf("\nExiting Program ");
     exit(0);
   default:printf("\nEnter Valid choice");
  }
 }while(1);
}

void push()
{
 int item;
 if(top==size-1)

 {
  printf("\nStack OVERFLOW.Item Cannot be pushed");
  return;
 }
 else
 {
  printf("\nEnter an item to be pushed onto stack:");
  scanf("%d",&item);
  top++;
  stk[top]=item;
 }
}

void pop()
{
 int item;
 if(top==-1)
 {
  printf("\nStack UNDERFLOW.Item cannot be popped");
  return;
 }
 else
 {
  item=stk[top];
  top--;
  printf("\nItem popped from stack: %d",item);
```

```
 }
}

void peek()
{
 if(top==-1)
 {
  printf("\nStack Empty");
  return;
 }

 else
 {
  printf("\nElement at the top of stack is %d",stk[top]);
 }
}

void display()
{
 int i;
 if(top==-1)
 {
  printf("\nStack Empty");
  return;
 }
 else
 {
  printf("\nElements in the stack are:\n");
  for(i=top;i>=0;i--)
  {
   printf("%d ",stk[i]);
  }
 }
}
```