```
# include <stdio.h>
# include <stdlib.h>
# define size 5
int stack[size],top=-1;
void push();
void pop();
void display();
void main()
{
   int act;
   do {
      printf("Select an action to Continue\n");
      printf("1.Push\t2.pop\t3.Display\t4.Exit\n");
      scanf("%d",&act);
      switch(act)
      {
         case 1:
         {
            printf("You have chosen Push Operation\n");
            push();
            break;
         }
         case 2:
         {
            printf("You have chosen Pop Operation\n");
            pop();
            break;
```

```
        }
        case 3:
        {
           printf("You have chosen Display Operation\n");
           display();
           break;
        }
        case 4:
        {
           exit(0);
        }
        default:
        {
           printf("Wrong choice!!\n");
           printf("Try again\n");
           break;
        }
      }
   } while(act!=4);
}
void push()
{
   int item;
   printf("Enter item to be pushed into the stack\n");
   scanf("%d",&item);
   if(top==size-1)
      printf("Error:Stack Overflow\n");
```

```
    else
    {
        top++;
        stack[top] = item;
        printf("%d pushed Successfully\n",item);
    }
}
void pop()
{
    int item;
    if(top==-1)
    printf("Error:Stack Underflow\n");
    else
    {
        item = stack[top];
        printf("%d is deleted Successfully\n",item);
        top--;
    }
}
void display()
{
    int i;
    if(top==-1)
    printf("No elements in Stack\n");
    else
    {
        printf("Stack elements are: \n");
```

```
    for(i=top; i>=0; i--)
    {
       printf("%d\n",stack[i]);
    }
  }
}
```

```
Select an action to Continue
1.Push  2.pop   3.Display       4.Exit
1
You have chosen Push Operation
Enter item to be pushed into the stack
30
30 pushed Successfully
Select an action to Continue
1.Push  2.pop   3.Display       4.Exit
1
You have chosen Push Operation
Enter item to be pushed into the stack
40
40 pushed Successfully
Select an action to Continue
1.Push  2.pop   3.Display       4.Exit
1
You have chosen Push Operation
Enter item to be pushed into the stack
50
50 pushed Successfully
Select an action to Continue
1.Push  2.pop   3.Display       4.Exit
1
You have chosen Push Operation
Enter item to be pushed into the stack
80
80 pushed Successfully
Select an action to Continue
1.Push  2.pop   3.Display       4.Exit
1
You have chosen Push Operation
Enter item to be pushed into the stack
70
70 pushed Successfully
Select an action to Continue
```

```
1.Push  2.pop   3.Display       4.Exit
3
You have chosen Display Operation
Stack elements are:
70
80
50
40
30
Select an action to Continue
1.Push  2.pop   3.Display       4.Exit
2
You have chosen Pop Operation
70 is deleted Successfully
Select an action to Continue
1.Push  2.pop   3.Display       4.Exit
3
You have chosen Display Operation
Stack elements are:
80
50
40
30
Select an action to Continue
1.Push  2.pop   3.Display       4.Exit
4
```