

```

#include<stdio.h>
#include<process.h>
#define stacksize 5
int top=-1;
int s[10];
int item;
void push()
{
    if(top==(stacksize-1))
    {
        printf("STACK OVERFLOW\n");
        return;
    }
    top=top+1;
    s[top]=item;
}
int pop()
{
    if(top== -1)
        return -1;
    return s[top--];
}
void display()
{
    int i;
    if(top== -1)
    {
        printf("THE STACK IS EMPTY/STACK UNDERFLOW\n");
        return;
    }
    printf("THE CONTENTS OF THE STACK ARE\n");
    for(i=0;i<=top;i++)
    {
        printf("%d\n",s[i]);
    }
}

```

structures.c totamarks.c salary.c alphanumeric.c sl.c series.c grade.c prime.c menudriven.c elective.c stack.c

```
    }
    printf("THE CONTENTS OF THE STACK AREA\n");
    for(i=0;i<=top;i++)
    {
        printf("%d\n",s[i]);
    }
}

void main()
{
    int itemdeleted;
    int c,i;
    while(i!=4)
    {
        printf("1-PUSH 2-POP 3-DISPLAY 4-EXIT\n");
        printf("ENTER YOUR CHOICE\n");
        scanf("%d",&c);
        switch(c)
        {
            case 1:
                printf("enter the item to be inserted\n");
                scanf("%d",&item);
                push();
                break;
            case 2:
                itemdeleted=pop();
                if(itemdeleted==-1)
                    printf("STACK IS EMPTY\n");
                else
                    printf("the item deleted is %d\n",itemdeleted);
                break;
            case 3:
                display();
                break;
            case 4:
                exit(0);
                break;
        }
    }
}
```



```

switch(c)
{
    case 1:
        printf("enter the item to be inserted\n");
        scanf("%d",&item);
        push();
        break;
    case 2:
        itemdeleted=pop();
        if(itemdeleted==-1)
            printf("STACK IS EMPTY\n");
        else
            printf("the item deleted is %d\n",itemdeleted);
        break;
    case 3:
        display();
        break;
    case 4:
        exit(0);
        break;
    default:
        printf("INVALID CHOICE\n");
}
}

```

```
41 C:\WINDOWS\SYSTEM32\cmd.exe
42 1-PUSH 2-POP 3-DISPLAY 4-EXIT
43 ENTER YOUR CHOICE
44 1
45 enter the item to be inserted
46 23
47 1-PUSH 2-POP 3-DISPLAY 4-EXIT
48 ENTER YOUR CHOICE
49 1
50 enter the item to be inserted
51 34
52 1-PUSH 2-POP 3-DISPLAY 4-EXIT
53 ENTER YOUR CHOICE
54 1
55 enter the item to be inserted
56 56
57 1-PUSH 2-POP 3-DISPLAY 4-EXIT
58 ENTER YOUR CHOICE
59 2
60 the item deleted is 56
61 1-PUSH 2-POP 3-DISPLAY 4-EXIT
62 ENTER YOUR CHOICE
63 2
64 the item deleted is 34
65 1-PUSH 2-POP 3-DISPLAY 4-EXIT
66 ENTER YOUR CHOICE
67 3
68 THE CONTENTS OF THE STACK ARE
69 23
70 1-PUSH 2-POP 3-DISPLAY 4-EXIT
71 ENTER YOUR CHOICE
```

```
42 1
43 enter the item to be inserted
44 56
45 1-PUSH 2-POP 3-DISPLAY 4-EXIT
46 ENTER YOUR CHOICE
47 2
48 the item deleted is 56
49 1-PUSH 2-POP 3-DISPLAY 4-EXIT
50 ENTER YOUR CHOICE
51 2
52 the item deleted is 34
53 1-PUSH 2-POP 3-DISPLAY 4-EXIT
54 ENTER YOUR CHOICE
55 3
56 THE CONTENTS OF THE STACK ARE
57 23
58 1-PUSH 2-POP 3-DISPLAY 4-EXIT
59 ENTER YOUR CHOICE
60 2
61 the item deleted is 23
62 1-PUSH 2-POP 3-DISPLAY 4-EXIT
63 ENTER YOUR CHOICE
64 2
65 STACK IS EMPTY
66 1-PUSH 2-POP 3-DISPLAY 4-EXIT
67 ENTER YOUR CHOICE
68
69
70
71
```