

## main.c

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #define MAX 10
4 int top=-1,stack[MAX];
5 void push();
6 void pop();
7 void display();
8
9 int main()
10 {
11     int ch;
12     while(1)
13     {
14         printf("\n**STACK MENU**");
15         printf("\n\n1.PUSH\n2.POP\n3.DISPLAY\n4.EXIT");
16         printf("\n\nENTER YOUR CHOICE(1-4):");
17         scanf("%d",&ch);
18
19         switch(ch)
20         {
21             case 1:push();
22                     break;
23
24             case 2: pop();
25                     break;
26             case 3: display();
27                     break;
28             case 4: exit(0);
29             default: printf("Wrong choice");
```

## main.c

```
28     case 4: exit(0);
29     default: printf("\nWrong choice");
30   }
31 }
32 return 0;
33 }
34 void push()
35 {
36   int val;
37   if(top==MAX-1)
38   { printf("\nSTACK IS FULL");
39   }
40 else
41 { printf("\n ENTER ELEMENTS TO PUSH:");
42   scanf("%d",&val);
43   top=top+1;
44   stack[top]=val;
45 }
46 }
47 void pop()
48 {
49   if(top==-1)
50   { printf("\nSTACK IS EMPTY");
51   }
52 else
53 { printf("\nDELETED ELEMENT IS %d",stack[top]);
54   top=top-1;
55   }
56 }
```

## main.c

```
52     else
53     { printf("\nDELETED ELEMENT IS %d",stack[top]);
54     top=top-1;
55     }
56     }
57     void display()
58     { int i;
59     if(top==-1)
60     { printf("\n STACK IS EMPTY");
61     }
62     else
63     { printf("\n STACK IS..."); [ ]
64     for(i=top;i>=0;--i)
65     printf("%d\n",stack[i]);
66     }
67 }
```

```
> clang-7 -pthread -lm -o main main.c  
> ./main
```

\*\*STACK MENU\*\*

- 1.PUSH
- 2.POP
- 3.DISPLAY
- 4.EXIT

ENTER YOUR CHOICE(1-4):1

I

ENTER ELEMENTS TO PUSH:3

\*\*STACK MENU\*\*

- 1.PUSH
- 2.POP
- 3.DISPLAY
- 4.EXIT

ENTER YOUR CHOICE(1-4):2

DELETED ELEMENT IS 3

\*\*STACK MENU\*\*

- 1.PUSH
- 2.POP
- 3.DISPLAY
- 4.EXIT

ENTER YOUR CHOICE(1-4):

I

```
#include <stdio.h>
#include <stdlib.h>
#define MAX 10
```

```
int top = -1, stack[MAX];
void push();
void pop();
void display();
```

```
int main()
{
```

```
    int ch;
    while(1)
    {
```

```
        printf("\n** Stack Menu **");
        printf("\n1. Push\n2. Pop\n3. Display\n4. Exit");
        printf("\nEnter Your choice (1-4):");
        scanf("%d", &ch);
```

```
    switch(ch)
```

```
{
```

```
    case 1: push();
              break;
```

```
    case 2: pop();
              break;
```

```
    case 3: display();
              break;
```

```
    case 4: exit(0);
              break;
```

```
    default: printf("Wrong choice");
```

```
}
```

return 0;  
}

{ void push ()

    int val;  
    if (top == MAX-1)  
        { printf ("In Stack is Full");  
        }  
    else

        { printf ("In Entire Elements to Push : ");  
        scanf ("%d", &val);  
        top = top + 1;  
        Stack [top] = val;  
    }

}

void pop()

{ if (top == -1)  
    { printf ("In Stack is Empty");  
    }

else

    { printf ("In Deleted Element is : %d", stack [top]);  
    top = top - 1;  
}

}

void display()

First ,

if (top == -1)

{ printf ("In Stack is Empty");  
}

else

{ printf ("In Stack is ....");  
}

`for (i=top; i>=0; --i)`  
`printf ("%.1d\n", stack[i]);`

}

3

Output :

\*\* Stack Menu \*\*

1. Push
2. Pop
3. display
4. exit

Enter Your choice (1-4) : 1

Enter Element to Push : 3

\*\* Stack Menu \*\*

1. Push
2. Pop
3. display
4. Exit

Enter Your choice (1-4) : 2

Deleted Element IS 3

\*\* Stack Menu \*\*

1. Push
2. Pop
3. display
4. Exit