

C-Program to implement stack by Parameter

Page :-

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

int top = -1;
void Push(int item, int stack[])
{
    if (top == STACK_SIZE - 1)
    {
        printf("\n STACK OVERFLOW \n");
        return;
    }
    top = top + 1;
    stack[top] = item;
}

int Pop(int stack[])
{
    if (top == -1)
    {
        printf("\n STACK UNDERFLOW \n");
        return -1;
    }
    return stack[top - 1];
}
```

```
void display(int stack[5])
```

```
{
```

```
    int i;
```

```
    if (top == -1)
```

```
{
```

```
        printf("\nSTACK IS EMPTY\n");
```

```
        return;
```

```
}
```

```
printf("\nthe contents of the stack\n");
```

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

```
{
```

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

```
}
```

```
}
```

```
int main()
```

```
{
```

```
    int stack[5], item;
```

```
    int Deleted_item;
```

```
    int choice;
```

```
    for(;;)
```

```
{
```

```
    printf("\n1: Push\n2: Pop\n3: Display\n4: Exit\n");
```

```
    printf("Enter the choice :\n");
```

```
    scanf("%d", &choice);
```

```
    switch (choice)
```

```
switch(choice){\n    case 1:\n        printf("Enter the item to be inserted\n");\n        scanf("%d", &item);\n        Push(item, stack);\n    case 2:\n        deleted_item = Pop(stack);\n        if(deleted_item == -1)\n            {\n                printf("STACK IS EMPTY\n");\n            }\n        else\n            {\n                printf("the Deleted Item is : %d\n",\n                      deleted_item);\n            }\n        break;\n    case 3:\n        display(stack);\n        break;\n    default:\n        exit(0);\n    }\n\nreturn 0;
```

```
one.c
prime.c
q8.c
q10.c
smallest.c
~\De...JAVA)
array.java
Roots.java
~\Des...folder
a.c
array.c
b.c
bin.c
cal.c
calculator.c
cie.c
count.c
dd.c
ex.java
exa.java
hash.c
index.html
matpro.c
new.c
oo.c
pass by.c
prec.c
pri.c
prime.c
rand func.c

1 #include<stdio.h>
2 #include<stdlib.h>
3 #define STACK_SIZE 5
4 int top=-1;
5 void push(int item,int Stack[])
6 {
7     if(top==STACK_SIZE-1)
8     {
9         printf("\nSTACK OVERFLOW\n");
10        return ;
11    }
12    top=top+1;
13    Stack[top]=item;
14 }
15 int pop(int Stack[])
16 {
17     if(top==-1)
18     {
19         printf("\nSTACK UNDERFLOW\n");
20         return -1;
21     }
22     return Stack[top--];
23 }
24 void display(int Stack[])
25 {
26     int i;
27     if(top==-1)
28     {
29         printf("\nSTACK IS EMPTY\n");
30         return ;
31     }
32     printf("\nThe Contents of the Stack\n");
33     for(i=0;i<=top;i++)
34     {
35         printf("%d\n",Stack[i]);
36     }
37 }
38 int main()
```

Status gcc -Wall -o "a" "a.c" (in directory: C:\Users\DELL\Desktop\New folder)
Compiler Compilation finished successfully.

Messages

Scribble

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```
38     int main()
39     {
40         int Stack[5],item;
41         int Deleted_item;
42         int choice;
43         for(;;)
44     {
45             printf("\n1:push\n2:pop\n3:display\n4:exit\n");
46             printf("\nEnter the Choice :\n");
47             scanf("%d",&choice);
48             switch(choice)
49             {
50                 case 1:
51                     printf("\nEnter the item to be inserted\n");
52                     scanf("%d",&item);
53                     push(item,Stack);
54                 case 2:
55                     Deleted_item=pop(Stack);
56                     if(Deleted_item== -1)
57                     {
58                         printf("STACK IS EMPTY\n");
59                     }
60                 else
61                     {
62                         printf("The Deleted Item is : %d\n",Deleted_item);
63                     }
64                     break;
65                 case 3:
66                     display(Stack);
67                     break;
68                 default : exit(0);
69             }
70         }
71         return 0;
72     }
73 }
```

Status gcc -Wall -o "a" "a.c" (in directory: C:\Users\DELL\Desktop\New folder)
Compiler Compilation finished successfully.

essages
cribble

C:\WINDOWS\SYSTEM32\cmd.exe

1:push
2:pop
3:display
4:exit

Enter the Choice :
2

STACK UNDERFLOW
STACK IS EMPTY

1:push
2:pop
3:display
4:exit

Enter the Choice :
3

STACK IS EMPTY

1:push
2:pop
3:display
4:exit

Enter the Choice :

```
1:push  
2:pop  
3:display  
4:exit
```

Enter the choice

1

Enter the item to be Inserted

5

```
1:push  
2:pop  
3:display  
4:exit
```

Enter the choice

1

Enter the item to be Inserted

10

```
1:push  
2:pop  
3:display  
4:exit
```

Enter the choice

1

Enter the item to be Inserted

15

C:\WINDOWS\SYSTEM32\cmd.exe

1
Enter the item to be Inserted
25

1:push
2:pop
3:display
4:exit
Enter the choice
3

DISPLAYING CONTENTS OF STACK

5
10
15
20
25

1:push
2:pop
3:display
4:exit
Enter the choice
4

program exited with code: 0)

ress any key to continue . . .