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Online C Compiler | jeevanmuchakarla/ds.csa0344-Data-structures

Programiz C Online Compiler

C Certification >

main.c

Run

```c
#192210211
#include <stdio.h>
#define MAXSIZE 5
struct stack{
int stk[MAXSIZE];
int top;};
typedef struct stack STACK;
STACK s;
void push(void);
int  pop(void);
void display(void);
void main (){
int choice;
int option = 1;
s.top = -1;
printf ("STACK OPERATION\n");
while (option){
printf ("----------------------------------------\n");
printf ("      1    -->    PUSH               \n");
printf ("      2    -->    POP                \n");
printf ("      3    -->    DISPLAY              \n");
printf ("      4    -->    EXIT           \n");
printf ("----------------------------------------\n");
printf ("Enter your choice\n");
        scanf    ("%d", &choice);
        switch (choice)
        {
        case 1:
            push();
            break;
```

Output

Clear

```
/tmp/cVJVAVCJd4.o
STACK OPERATION
----------------------------------------
      1    -->    PUSH
      2    -->    POP
      3    -->    DISPLAY
      4    -->    EXIT
----------------------------------------
Enter your choice
```

main.c

Run

```
            break;
        case 2:
            pop();
            break;
        case 3:
            display();
            break;
        case 4:
            return;
        }
fflush (stdin);
printf ("Do you want to continue(Type 0 or 1)?\n");
scanf("%d", &option);}}
void push ()
{
    int num;
    if (s.top == (MAXSIZE - 1))
    {
        printf ("Stack is Full\n");
        return;
    }
    else
    {
        printf ("Enter the element to be pushed\n");
        scanf ("%d", &num);
        s.top = s.top + 1;
        s.stk[s.top] = num;
    }
    return;
}
```

Output

Clear

```
/tmp/cVJVAVCJd4.o
STACK OPERATION
----------------------------------------
     1    -->    PUSH
     2    -->    POP
     3    -->    DISPLAY
     4    -->    EXIT
----------------------------------------
Enter your choice
```

main.c

Run

```
    return;
}
int pop ()
{
    int num;
    if (s.top == - 1)
    {
        printf ("Stack is Empty\n");
        return (s.top);
    }
    else
    {
num = s.stk[s.top];
printf ("poped element is = %dn", s.stk[s.top]);
s.top = s.top - 1;}
return(num);}
void display (){
int i;
if (s.top == -1){
printf ("Stack is empty\n");
return;}
else{
printf ("\n The status of the stack is \n");
for (i = s.top; i >= 0; i--)
{
 printf ("%d\n", s.stk[i]);
}
}
printf ("\n");
}
```

Output

Clear

```
/tmp/cVJVAVCJd4.o
STACK OPERATION
----------------------------------------
    1    -->    PUSH
    2    -->    POP
    3    -->    DISPLAY
    4    -->    EXIT
----------------------------------------
Enter your choice
```