

stackprgm.c - Code::Blocks 20.03

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```
#include <stdio.h>
#include <stdlib.h>
#define size 5
int a[size];
int top = -1;

void push(int value) {
    if (top == size - 1) {
        printf("Stack Overflow!");
    } else {
        top++;
        a[top] = value;
        printf("%d stack is pushed successfully.\n", value);
    }
}

void pop() {
    if (top == -1) {
        printf("Stack Underflow!");
    } else {
        printf("%d stack is popped.\n", a[top]);
        top--;
    }
}

void display() {
    if (top == -1) {
        printf("Stack is empty\n");
    } else {
        printf("Stack elements are\n");
        for (int i = top; i >= 0; i--) {
            printf("%d\n", a[i]);
        }
    }
}

void displayMenu() {
    printf("Stack Operations Menu\n");
    printf("1. Push\n");
    printf("2. Pop\n");
    printf("3. Display\n");
    printf("4. Exit\n");
    printf("Enter your choice: ");
}

int main() {
    int choice, value;
    printf("Stack size: %d\n", size);
    while (1) {
        displayMenu();
        scanf("%d", &choice);
        switch (choice) {
            case 1:
                printf("Enter value to push: ");
                scanf("%d", &value);
                push(value);
                break;
            case 2:
                pop();
                break;
            case 3:
                display();
                break;
            case 4:
                exit(0);
                break;
            default:
                printf("Invalid choice!\n");
        }
    }
}
```

C:\Users\STUDENT\Downloads\CRC\stackprgm.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 69, Col 2, Pos 1557 Insert Read/Write default ENG IN 11:57:47 22-09-2025

stackprgm.c - Code::Blocks 20.03

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C:\ Mask:

Start here x stackprgm.c x

```
24     if (top == -1) {
25         printf("Stack is empty\n");
26     } else {
27         printf("Stack elements are\n");
28         for (int i = top; i >= 0; i--) {
29             printf("%d\n", a[i]);
30         }
31     }
32 }
33 void displayMenu() {
34     print("Stack Operations Menu\n");
35     print("1. Push\n");
36     print("2. Pop\n");
37     print("3. Display\n");
38     print("4. Exit\n");
39     print("Enter your choice: ");
40 }
41 int main() {
42     int choice, value;
43     print("Stack size: %d\n", size);
44     while (1) {
45         displayMenu();
46         scanf("%d", &choice);
47         switch (choice) {
48             case 1:
49                 printf("Enter value to push: ");
50                 scanf("%d", &value);
51                 push(value);
52                 break;
53             case 2:
54                 pop();
55                 break;
56             case 3:
57                 display();
58                 break;
59             case 4:
60                 printf("Exit\n");
61                 exit(0);
62             default:
63                 printf("Invalid choice");
64         }
65     }
66 }
67
68 return 0;
69 }
70 }
```

C:/Users/STUDENT/Downloads/CRC/stackprgm.c Windows (CR+LF) WINDOWS-1252 Line 5, Col 14, Pos 84 Insert Read/Write default

18°C Partly sunny ENG IN 12:00:08 22-09-2025

```
C:\Users\STUDENT\Download X + v
Stack size: 5
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 3
Stack is empty
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 1
Enter value to push: 10
10 stack is pushed successfully.
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 1
Enter value to push: 20
20 stack is pushed successfully.
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 1
Enter value to push: 30
30 stack is pushed successfully.
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 1
Enter value to push: 40
40 stack is pushed successfully.
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 1
Enter value to push: 50
50 stack is pushed successfully.
Stack Operations Menu
1. Push
2. Pop
```

19°C  
Partly sunny



ENG IN 12:01:42  
22-09-2025

```
C:\Users\STUDENT\Download X + v
40 stack is pushed successfully.
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 1
Enter value to push: 50
50 stack is pushed successfully.
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 1
Enter value to push: 60
Stack Overflow!Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 2
50 stack is popped
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 2
40 stack is popped
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 3
Stack elements are
30
20
10
Stack Operations Menu
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 4
Exit

Process returned 0 (0x0) execution time : 62.875 s
Press any key to continue.
```

