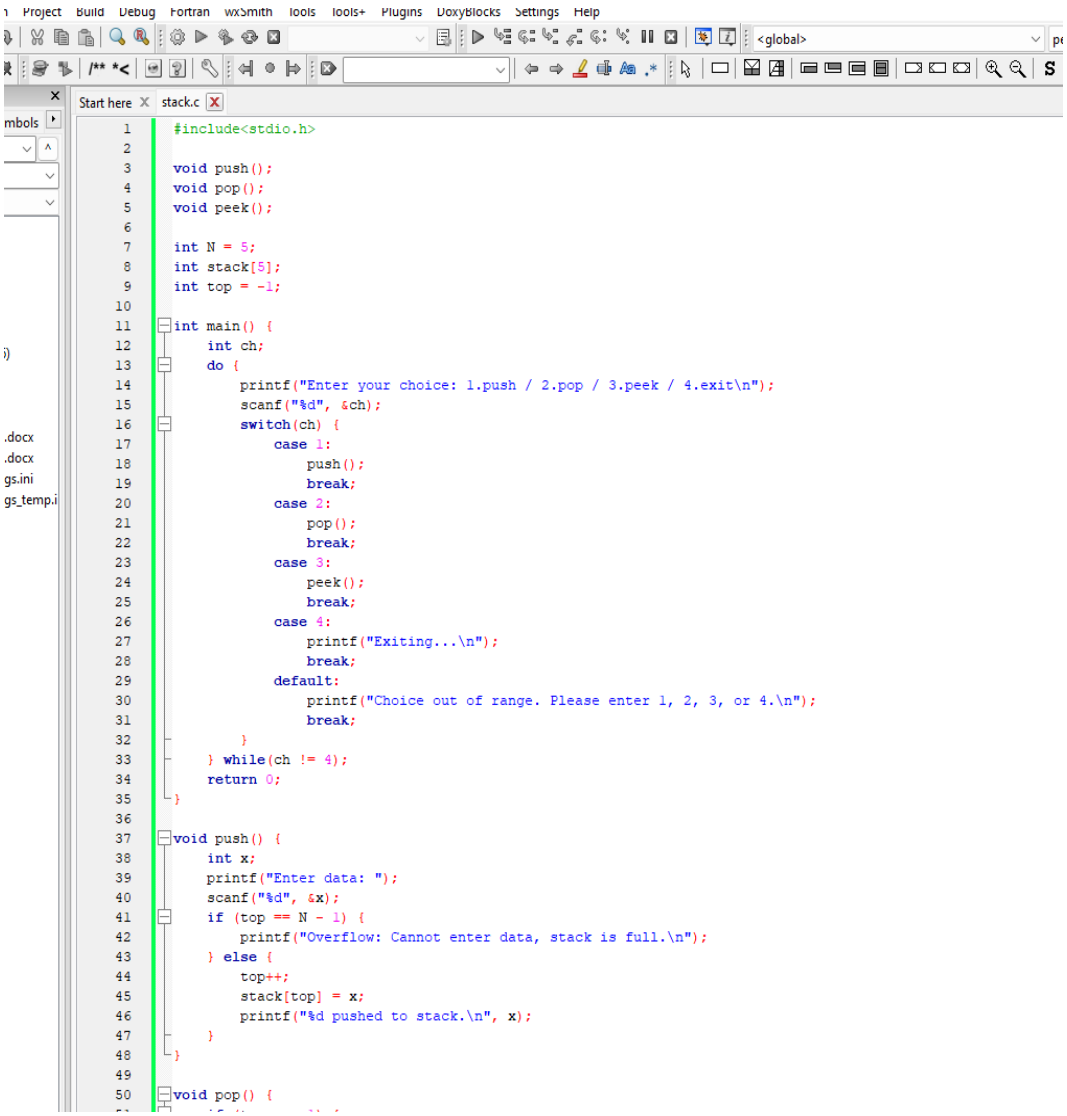
Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
<global>
Start here
stack.c
#include<stdio.h>
void push();
void pop();
void peek();
int N = 5;
int stack[5];
int top = -1;
int main() {
int ch;
do {
printf("Enter your choice: 1.push / 2.pop / 3.peek / 4.exit\n");
scanf("%d", &ch);
switch(ch) {
case 1:
push();
break;
case 2:
pop();
break;
case 3:
peek();
break;
case 4:
printf("Exiting...\n");
break;
default:
printf("Choice out of range. Please enter 1, 2, 3, or 4.\n");
break;
}
} while(ch != 4);
return 0;
}
void push() {
int x;
printf("Enter data: ");
scanf("%d", &x);
if (top == N - 1) {
printf("Overflow: Cannot enter data, stack is full.\n");
} else {
top++;
stack[top] = x;
printf("%d pushed to stack.\n", x);
}
}
void pop() {

```
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
1
Enter data: 10
10 pushed to stack.
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
1
Enter data: 20
20 pushed to stack.
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
1
Enter data: 30
30 pushed to stack.
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
1
Enter data: 40
40 pushed to stack.
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
1
Enter data: 50
50 pushed to stack.
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
1
Enter data: 60
Overflow: Cannot enter data, stack is full.
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
3
Top item: 50
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
2
Popped item: 50
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
2
Popped item: 40
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
2
Popped item: 30
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
2
Popped item: 20
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
2
Popped item: 10
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
2
Underflow: Stack is empty.
Enter your choice: 1.push / 2.pop / 3.peek / 4.exit
4
Exiting...

Process returned 0 (0x0)   execution time : 1259.643 s
Press any key to continue.
```

```c
}

void pop() {
    if (top == -1) {
        printf("Underflow: Stack is empty.\n");
    } else {
        int item = stack[top];
        top--;
        printf("Popped item: %d\n", item);
    }
}

void peek() {
    if (top == -1) {
        printf("Stack is empty.\n");
    } else {
        printf("Top item: %d\n", stack[top]);
    }
}
```