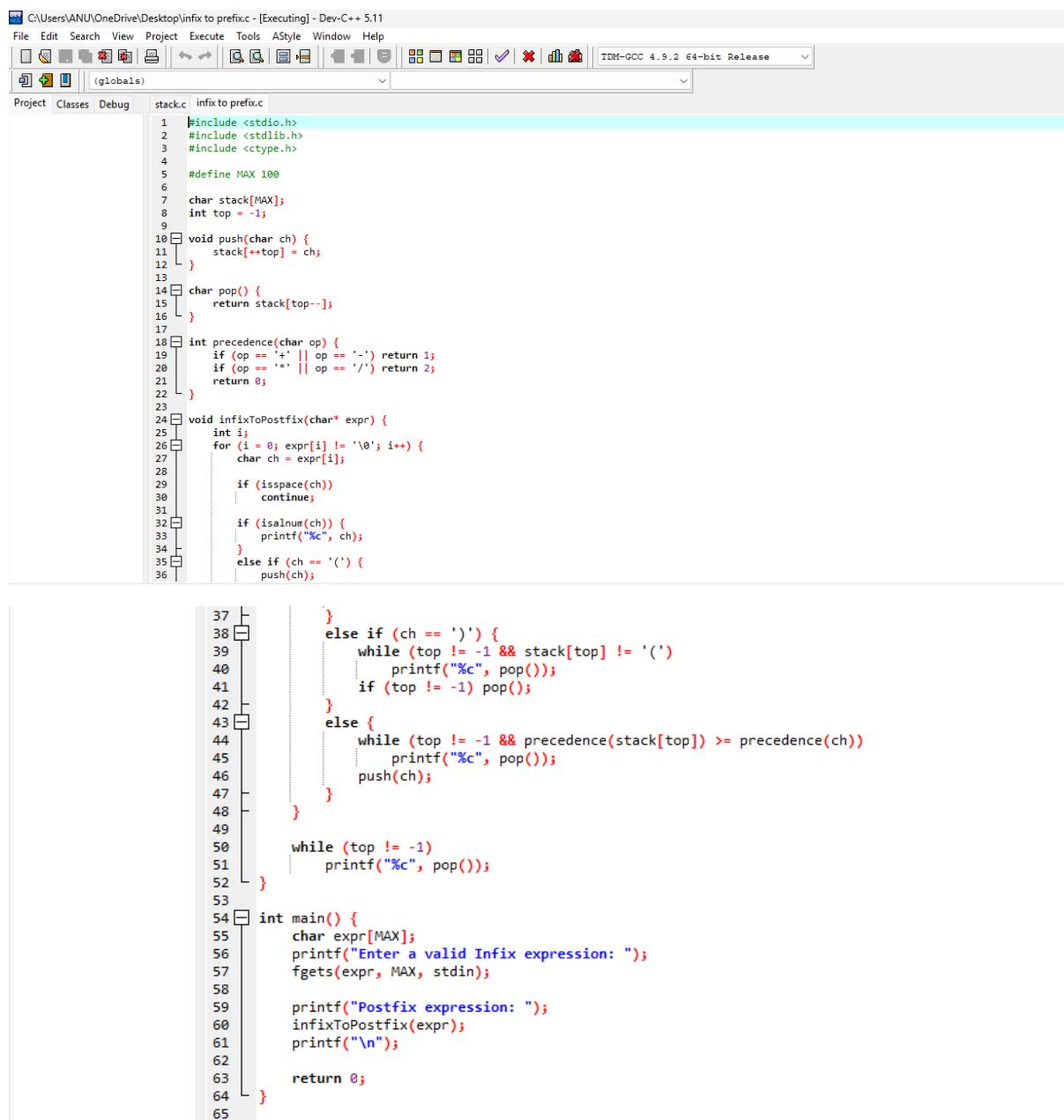


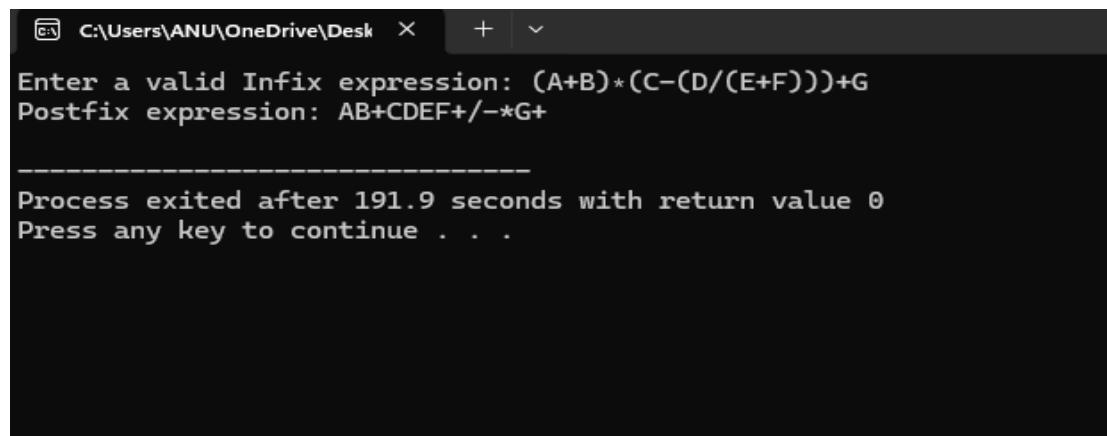
Infix to prefix



The screenshot shows the Dev-C++ IDE interface with the file `infixToPrefix.c` open. The code implements an infix-to-prefix converter using a stack. It includes functions for pushing and popping characters from the stack, determining operator precedence, and performing the conversion. The main function reads an infix expression from standard input, converts it to postfix, and then prints the result.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <ctype.h>
4
5 #define MAX 100
6
7 char stack[MAX];
8 int top = -1;
9
10 void push(char ch) {
11     stack[++top] = ch;
12 }
13
14 char pop() {
15     return stack[top--];
16 }
17
18 int precedence(char op) {
19     if (op == '+') ||| op == '-')
20         if (op == '+') ||| op == '/') return 2;
21     return 0;
22 }
23
24 void infixToPostfix(char* expr) {
25     int i;
26     for (i = 0; expr[i] != '\0'; i++) {
27         char ch = expr[i];
28
29         if (isspace(ch))
30             continue;
31
32         if (isalnum(ch)) {
33             printf("%c", ch);
34         }
35         else if (ch == '(') {
36             push(ch);
37
38         } else if (ch == ')') {
39             while (top != -1 && stack[top] != '(')
40                 printf("%c", pop());
41             if (top != -1) pop();
42         }
43         else {
44             while (top != -1 && precedence(stack[top]) >= precedence(ch))
45                 printf("%c", pop());
46             push(ch);
47         }
48
49     }
50     while (top != -1)
51         printf("%c", pop());
52 }
53
54 int main() {
55     char expr[MAX];
56     printf("Enter a valid Infix expression: ");
57     fgets(expr, MAX, stdin);
58
59     printf("Postfix expression: ");
60     infixToPostfix(expr);
61     printf("\n");
62
63     return 0;
64 }
```

Output:



The terminal window displays the execution of the program. It prompts the user for an infix expression, reads the input, converts it to postfix, and then prints the result. Finally, it exits with a return value of 0.

```
C:\Users\ANU\OneDrive\Desktop> Enter a valid Infix expression: (A+B)*(C-(D/(E+F)))+G
Postfix expression: AB+CDEF+/-*G+
-----
Process exited after 191.9 seconds with return value 0
Press any key to continue . . .
```