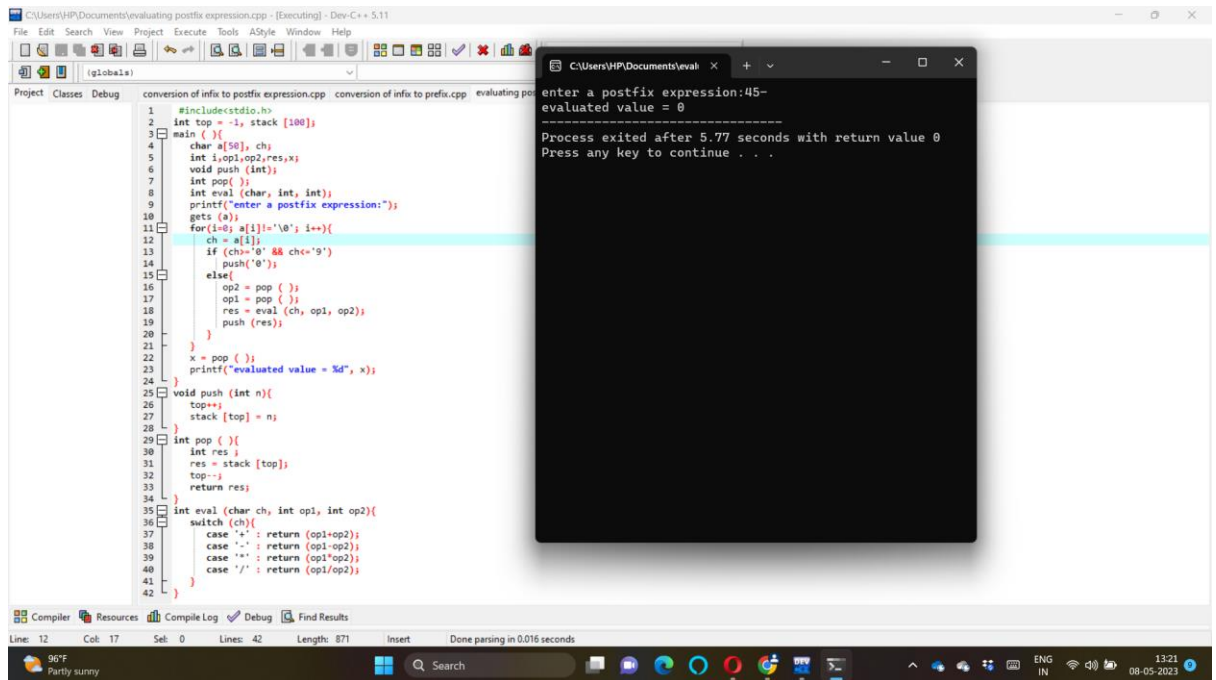


3.C PROGRAMM FOR EVALUATING THE POSTFIX EXPRESSION



The image shows a C++ IDE with a source code editor on the left and a console window on the right. The source code is a program for evaluating postfix expressions using a stack. The console window shows the program's execution, where the user has entered the postfix expression "45-", resulting in an evaluated value of 0.

```
1 #include<stdio.h>
2 int top = -1, stack [100];
3 main ( ){
4     char a[50], ch;
5     int i, op1, op2, res, x;
6     void push (int);
7     int pop ( );
8     int eval (char, int, int);
9     printf("enter a postfix expression:");
10    gets (a);
11    for(i=0; a[i]!='\0'; i++){
12        ch = a[i];
13        if (ch=='0' && ch<='9')
14            push(ch-'0');
15        else{
16            op2 = pop ( );
17            op1 = pop ( );
18            res = eval (ch, op1, op2);
19            push (res);
20        }
21    }
22    x = pop ( );
23    printf("evaluated value = %d", x);
24 }
25 void push (int n){
26     top++;
27     stack [top] = n;
28 }
29 int pop ( ){
30     int res;
31     res = stack [top];
32     top--;
33     return res;
34 }
35 int eval (char ch, int op1, int op2){
36     switch (ch){
37         case '+': return (op1+op2);
38         case '-': return (op1-op2);
39         case '*': return (op1*op2);
40         case '/': return (op1/op2);
41     }
42 }
```

enter a postfix expression:45-
evaluated value = 0

Process exited after 5.77 seconds with return value 0
Press any key to continue . . .