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1  #include<stdio.h>
2  #include<string.h>
3  #define MAX_ELE 30
4
5  // Function to return the precedence of operators
6  int f(char s) {
7      switch(s) {
8          case '+':
9          case '-': return 2;
10         case '*':
11         case '/': return 4;
12         case '$':
13         case '^': return 5;
14         case '(': return 0;
15         case '#': return -1;
16         default: return 8;
17     }
18 }
19
20 // Function to return the precedence of operators for incoming operators
21 int g(char s) {
22     switch(s) {
23         case '+':
24         case '-': return 1;
25         case '*':
26         case '/': return 3;
27         case '$':
28         case '^': return 6;
29         case '(': return 9;
30         case ')': return 0;
31         default: return 7;
32     }
33 }
34
35 int main() {
36     char c, s[MAX_ELE]={'#'}; // Stack initialized with '#'
37     char inf[MAX_ELE] = "a/b-(c+d)"; // Example infix expression
38     char pf[MAX_ELE];
39     int top = 0, i, j = 0; // top = 0 because '#' is already stored in stack
40
41     // Loop through the infix expression
42     for(i = 0; i < strlen(inf); i++) {
43         c = inf[i];
44
45         // While the precedence of the operator at top of the stack is greater
46         // than the current operator
47         while(f(s[top]) > g(c)) {
48             pf[j] = s[top];
49             j++;
50             top--;
51         }
52
53         // If the precedence is not equal, push the operator onto the stack
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53         if(f(s[top]) != g(c))
54             s[++top] = c;
55         else
56             top--;
57     }
58
59     // Pop the remaining operators from the stack
60     for(; s[top] != '#'; top--)
61         pf[j++] = s[top];
62     pf[j] = '\0'; // Null-terminate the postfix expression
63
64     printf("The postfix expression: %s\n", pf);
65
66     return 0;
67 }
68
```