

Sym | infix\_to\_postfix.c \*

Func  
F [  
G [  
infi  
ma

```
1 #include<stdio.h>
2 #include<process.h>
3 #include<string.h>
4 int F(char symbol){
5     switch(symbol){
6         case '+':
7         case '-': return 2;
8         case '*':
9         case '/': return 4;
10        case '^':
11        case '$': return 5;
12        case '(': return 0;
13        case '#': return -1;
14        default: return 8;
15    }
16 }
17 int G(char symbol){
18     switch(symbol){
19         case '+':
20         case '-': return 1;
21         case '*':
22         case '/': return 3;
23         case '^':
24         case '$': return 6;
25         case '(': return 9;
26         case ')': return 0;
27         default: return 7;
28     }
29 }
30 void infix_postfix(char infix[],char postfix[]){
31     int top,i,j;
32     char s[30],symbol;
```

```
gcc -Wall -o "infix_to_postfix" "infix_to_postfix.c" (in directory: C:\Users\harshitha\Desktop\harshitha\C)
Compilation finished successfully.
```

Sym | infix\_to\_postfix.c x

```
32     char s[30],symbol;
33     top=-1;
34     s[++top]='#';
35     j=0;
36     for(i=0;i<strlen(infix);i++){
37         symbol=infix[i];
38         while(F(s[top])>G(symbol)){
39             postfix[j]=s[top--];
40             j++;
41         }
42         if(F(s[top])!=G(symbol))
43             s[++top]=symbol;
44         else
45             top--;
46     }
47     while(s[top]!='#'){
48         postfix[j++]=s[top--];
49     }
50     postfix[j]='\0';
51 }
52 int main(){
53     char infix[20],postfix[20];
54     printf("Enter a valid infix expression\n");
55     scanf("%s",infix);
56     infix_postfix(infix,postfix);
57     printf("The postfix expression is \n");
58     printf("%s\n",postfix);
59     return 0;
60 }
61
62
63
```

```
gcc -Wall -o "infix_to_postfix" "infix_to_postfix.c" (in directory: C:\Users\harshitha\Desktop\harshitha\C)
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```

```
infix_to_postfix.c
32 char s[30], symbol;
33 top=-1;
34 s[++top]='#';
35 j=0;
36 for(i=0; i<strlen(infix); i++){
37     symbol=infix[i];
38     while(F(s[top])>G(symbol)){
39         postfix[j]=s[top--];
40         j++;
41     }
42     if(F(s[top])!=G(symbol))
43         s[++top]=symbol;
44     else
45         top--;
46 }
47 while(s[top]!='#'){
48     postfix[j++]=s[top--];
49 }
50 postfix[j]='\0';
51 }
52 int main(){
53     char infix[20], postfix[20];
54     printf("Enter a valid infix expression\n");
55     scanf("%s", infix);
56     infix_postfix(infix, postfix);
57     printf("The postfix expression is \n");
58     printf("%s\n", postfix);
59     return 0;
60 }
61
62
63
```

```
C:\WINDOWS\SYSTEM32\cmd.exe
Enter a valid infix expression
(a+b)*(c-d^(e/f))
The postfix expression is
ab+cdef/^-*

-----
(program exited with code: 0)

Press any key to continue . . .
```

```
gcc -Wall -o "infix_to_postfix" "infix_to_postfix.c" (in directory: C:\Users\harshitha\Desktop\harshitha\C)
Compilation finished successfully.
```