

```
he_c_compiler
aboutblank
main.c
9 #include<stdio.h>
10 #include<string.h>
11
12 int F(char symbol)
13 {
14     switch(symbol)
15     {
16
17     case '+':
18     case '-': return 2;
19     case '*':
20     case '/':return 4;
21     case '^':
22     case '$':return 5;
23     case '(':return 0;
24     case '#':return -1;
25     default:return 8;
26 }
27 }
28 int G(char symbol)
29 {
30     switch(symbol)
31     {
32
33     case '+':
34     case '-': return 1;
35     case '*':
36     case '/':return 3;
37     case '^':
38     case '$':return 6;
39     case '(':return 9;
40     case ')':return 0;
41     default:return 7;
42 }
43 }
44 void infix_postfix(char infix[], char postfix[])
```

```

}
void infix_postfix(char infix[],char postfix[])
{
    int top,i,j;
    char s[30],symbol;
    top=-1;
    s[++top]='#';
    j=0;
    for(i=0;i<strlen(infix);i++)
    {
        symbol = infix[i];
        while(F(s[top])>G(symbol))
        {
            postfix[j]=s[top--];
            j++;
        }
        if(F(s[top])!=G(symbol))
            s[++top]=symbol;
        else
            top--;
    }

    while(s[top]!='#')
    {
        postfix[j++]=s[top--];
    }
    postfix[j]='\0';
}

int main()
{
    char infix[20];
    char postfix[20];
    for(int z=0;z<=2;z++){
        printf("Enter the valid infix expression\n");

```

```
main.c
50 j=0;
51 for(i=0;i<strlen(infix);i++)
52 {
53     symbol = infix[i];
54     while(F(s[top])>G(symbol))
55     {
56         postfix[j]=s[top--];
57         j++;
58     }
59     if(F(s[top])!=G(symbol))
60     s[++top]=symbol;
61     else
62     top--;
63 }
64
65 while(s[top]!='#')
66 {
67     postfix[j++]=s[top--];
68 }
69 postfix[j]='\0';
70 }
71
72
73 int main()
74 {
75     char infix[20];
76     char postfix[20];
77     for(int z=0;z<=2;z++){
78         printf("Enter the valid infix expression\n");
79         scanf("%s",infix);
80         infix_postfix(infix,postfix);
81         printf("The postfix expression is:\n");
82         printf("%s\n",postfix);
83     }
84 }
85 }
```

```
57         j++;  
58     }  
59     if(F(s[top])!=G(symbol))  
60     s[++top]=symbol;  
61     else
```

input

Enter the valid infix expression

a+b-c*d/e

The postfix expression is:

ab+cd*e/-

Enter the valid infix expression