

Program - 2:-

```
#include <stdio.h>
#include <string.h>
int F (char Symbol)
{
    switch (Symbol)
    {
        case '+':
        case '-': return 2;
        case '*':
        case '/': return 4;
        case '^':
        case '$': return 5;
        case 'c': return 0;
        case '#': return -1;
        default: return 8;
    }
}
```

```
int G (char Symbol)
{
    switch (Symbol)
    {
        case '+':
        case '-': return 1;
        case '*':
```



```
case '/' : return 3;  
case '^' :  
case '$' : return 6;  
case 'c' : return 9;  
case 'j' : return 0;  
default : return 7;  
}
```

```
}
```

```
void infix-postfix (char infix [], char postfix[])  
{
```

```
    int top, i, j;
```

```
    char s[30], symbol;
```

```
    top = -1;
```

```
    s[top+1] = '#';
```

```
    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[i++] = s[top--];
}
postfix[i] = '\0';
}

int main()
{
    char infix[20];
    char postfix[20];
    printf("Enter the valid infix expression\n");
    scanf("%s", infix);
    infix = postfix(infix, postfix);
    printf("The postfix expression is: \n");
    printf("%s\n", postfix);
}
```