LAB2

```c
#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 '(': 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 '(': return 9;
        case '#': return 0;
        default : return 7;
    }
}
```

```c
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';
}
void main() {
    char infix[20], postfix[20];
    printf ("enter valid infix expression :\n");
    scanf (".1.S", infix);
    infix_postfix (infix, postfix);
    printf (" the postfix expression is:\n");
    printf ("%s\n", postfix);
}
```