LAB - 2

```
#include <stdio.h>
#include <string.h>

int F(char symbol)
{
    switch (symbol)
{
    case '+':
    case '-': return 2;
    case '*':
    case '/': return 4;
    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 ;
  }
}
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]) != (symbol) ;
    s [++top] = symbol ;
    else
    top--;
}
```

```
while (s[top] != '#')
{
 postfix [j++] = s [top --];
 }
postfix [j] = '\0';
}
void main().
{
 char infix [20];
 char postfix (20);
 printf ("Enter the valid infix expression \n");
 scanf ("%s", infix);
  infix - postfix (infix, postfix);
 printf ("The postfix exp is \n");
   printf ("%s \n", postfix);
}
```