* LAB PROGRAMME - 3:

* Conversion of infix expression to postfix expression :

```
#include <stdio.h>
#include <stdlib.h>
#include <process.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;
    }
}


void conversion(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];
          pf("Enter Expression");
          sf("%s", infix);

     Conversion (infix ,posfix);

     pf("The postfix Expression is ~~%~~ \n");
      pf("%s", postfix);
```