LAB3: INFIX TO POSTFIX
WAP to convert a given valid parenthesized infix arithmetic expression to postfix expression. The expression consists of single character operands and the binary operators + (plus), - (minus), * (multiply) and / (divide)

```c
#include<stdio.h>
#include<string.h>
int A(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 B(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,j,i;
    char s[30],symbol;
    top=-1;
    s[++top]='#';
```

```c
        j=0;
        for(i=0;i<strlen(infix);i++)
        {
          symbol=infix[i];
          while(A(s[top])>B(symbol))
          {
            postfix[j]=s[top--];
            j++;
          }
          if(A(s[top])!=B(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 infix expression: ");
    scanf("%s",infix);
    infix_postfix(infix,postfix);
    printf("The postfix expression is:  ");
    printf("%s\n",postfix);
}
```
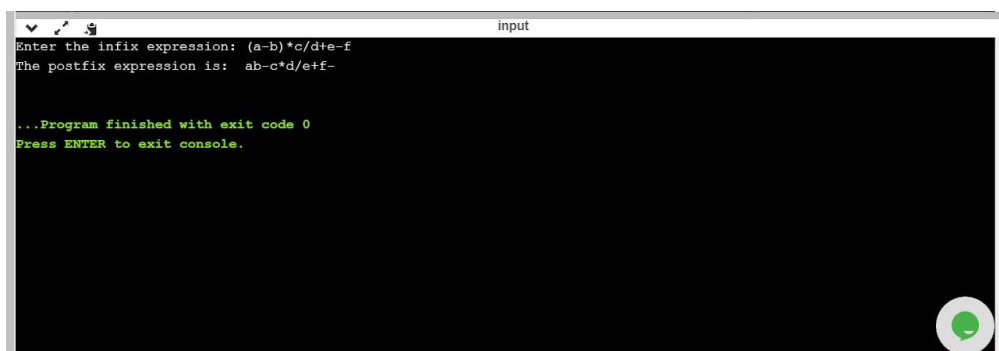
OUTPUT::

```
Enter the infix expression: ((a/b)+(c-d))/g*h)
The postfix expression is:  ab/cd-+g/h*


...Program finished with exit code 0
Press ENTER to exit console.
```