

```
#include<stdio.h>

#include<string.h>

#include<stdlib.h>

#include<process.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;

        case'#': return -1;

        default: return 7;

    }

}

```

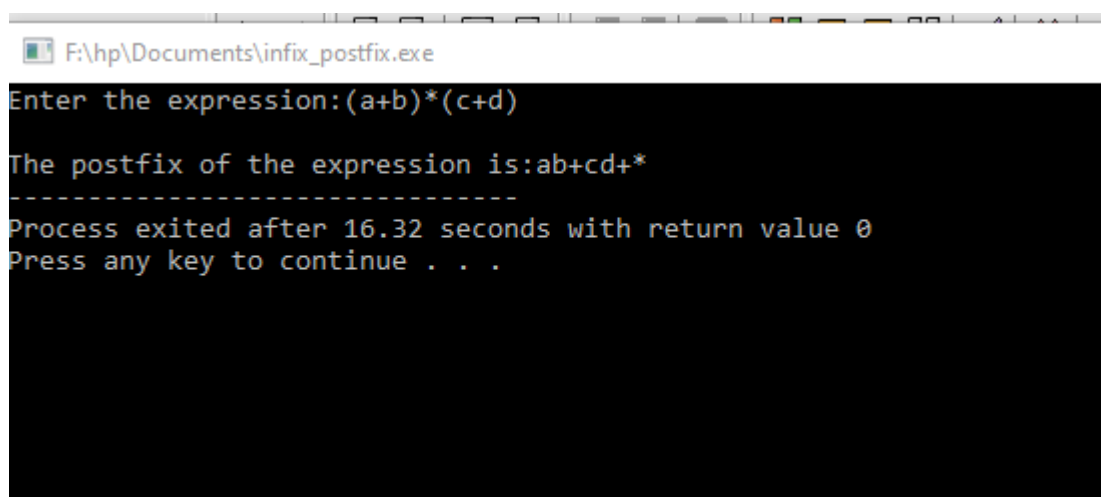
```

void conversion(char infix[],char postfix[])
{
    int top,i,j;
    char s[50],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];
    printf("Enter the expression:");
    scanf("%s",infix);
    conversion(infix,postfix);
    printf("\nThe postfix of the expression is:%s ",postfix);
    return 0;
}
```

OUTPUT:



```
F:\hp\Documents\infix_postfix.exe
Enter the expression:(a+b)*(c+d)
The postfix of the expression is:ab+cd+*
-----
Process exited after 16.32 seconds with return value 0
Press any key to continue . . .
```