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### Write a program to convert from infix to postfix :

```
#include <stdio.h>

#include <string.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;
    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])!=G(symbol))
            s[++top]=symbol;
        else

```

```
        top--;
    }

    while (s[top] != '#')
    {
        postfix[j++] = s[top--];
    }

    postfix[j] = '\0';
}

void main()
{
    char infix[20];
    char postfix[200];

    int i;

    printf("enter the valid infix expression\n");
    scanf("%s", infix);

    infix_postfix(infix, postfix);

    printf("the postfix exp is \n");
    printf("%s\n", postfix);

}
```

"C:\Users\Veeres h sajjan\Desktop\CODE BLOCK\ds\_week3\bin\Debug\ds\_wee...

enter the valid infix expression

$((a+(b-c)\times d)^e+f)$

the postfix exp is

$abc-d\times e^f+$

enter the valid infix expression

$x^y^z-m+n+p/q$

the postfix exp is

$xyz^m-n+pq/+$

enter the valid infix expression

$((a+b)\times c-(d-e))^{(f+g)}$

the postfix exp is

$ab+c\times de--fg+^$

Process returned 0 (0x0) execution time : 134.147 s

Press any key to continue.