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

int i,l,j=0,top=0;
char in[30],s[30],p[30];
void push(char item);
char pop();

void main()
{
    clrscr();
    printf("\n\n\t CONVERSION FROM INFIX TO POSTFIX NOTATION");
    printf("\n\t =====");
    printf("\n\n\t Enter Non-Numerical Expression: ");
    scanf("%s",&in);
    l=strlen(in);
    printf("\n\t Entered Infix Expression is: %s",in);
    in[l]='\0';
    in[++l]='\0';
    s[0]='(';
    for(i=0;i<l;i++)
    {
        printf("\n\t\t Stack: %s \t\t tp: %s",s,p);
        switch(in[i])
        {
            case '(':
                push(in[i]);
                break;
            case '^':
                while(s[top]=='^')
                    p[j++]=pop();
                push(in[i]);
                break;
            case '*':
                while(s[top]=='^' || s[top]=='*' ||
s[top]=='/')
                    p[j++]=pop();
                push(in[i]);
                break;
            case '/':
                while(s[top]=='^' || s[top]=='*' ||
s[top]=='/')
                    p[j++]=pop();
                push(in[i]);
                break;
            case '+':
                while(s[top]=='^' || s[top]=='*' ||
s[top]=='/' || s[top]=='+' || s[top]=='-')
                    p[j++]=pop();
                push(in[i]);
                break;
            case '-':
                while(s[top]=='^' || s[top]=='*' ||
s[top]=='/' || s[top]=='+' || s[top]=='-')

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        p[j++]=pop();
        push(in[i]);
        break;
    case ')':
        while(s[top]!='(')
        {
            p[j++]=pop();
        }
        top--;
        break;

    default:
        p[j++]=in[i];
}
}
printf("\n\n\t CONVERTED POSTFIX EXPRESS IS: %s",p);
getch();
}

char pop()
{
    char a;
    a=s[top];
    top--;
    return a;
}

void push(char item)
{
    top++;
    s[top]=item;
}

```