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

#define SIZE 100

char stack[SIZE];
int top = -1;

// Function to push to stack
void push(char ch) {
    stack[++top] = ch;
}

// Function to pop from stack
char pop() {
    return stack[top--];
}

// Function to return precedence of operators
int precedence(char op) {
    switch(op) {
        case '^': return 3;
        case '*':
        case '/': return 2;
        case '+':
        case '-': return 1;
        default : return 0;
    }
}

// Function to check if character is operator
int isOperator(char ch) {
    return ch == '+' || ch == '-' || ch == '*' || ch == '/' || ch == '^';
}

// Function to convert infix to postfix
void infixToPostfix(char infix[], char postfix[]) {
    int i, k = 0;
    char ch;

    for(i = 0; i < strlen(infix); i++) {
        ch = infix[i];

        if(isalnum(ch)) {
            postfix[k++] = ch;
        }
        else if(ch == '(') {

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        push(ch);
    }
    else if(ch == ')') {
        while(top != -1 && stack[top] != '(') {
            postfix[k++] = pop();
        }
        pop(); // Remove '('
    }
    else if(isOperator(ch)) {
        while(top != -1 && precedence(stack[top]) >= precedence(ch)) {
            postfix[k++] = pop();
        }
        push(ch);
    }
}

// Pop remaining operators
while(top != -1) {
    postfix[k++] = pop();
}

postfix[k] = '\0'; // Null terminate postfix
}

int main() {
    char infix[SIZE], postfix[SIZE];

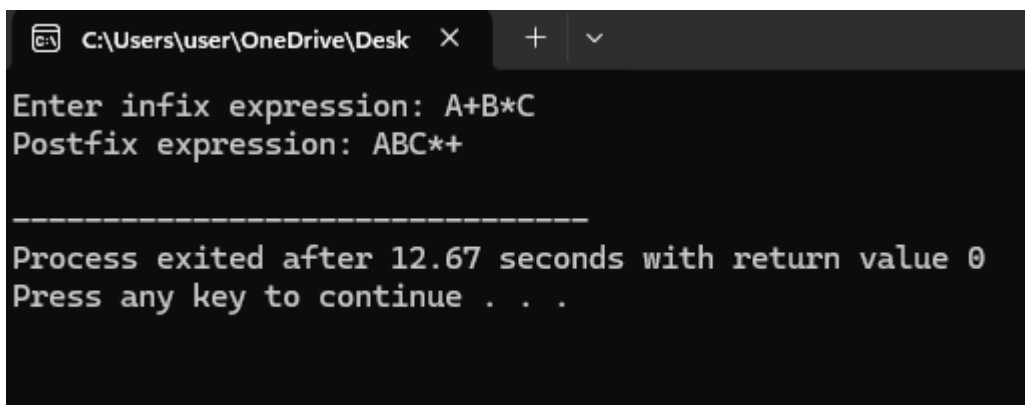
    printf("Enter infix expression: ");
    scanf("%s", infix);

    infixToPostfix(infix, postfix);

    printf("Postfix expression: %s\n", postfix);

    return 0;
}

```



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C:\Users\user\OneDrive\Desk  X  +  v
Enter infix expression: A+B*C
Postfix expression: ABC*+

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Process exited after 12.67 seconds with return value 0
Press any key to continue . . .

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