#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <ctype.h>

#define MAX 100

char stack[MAX];

int top = -1;

void push(char x) {

if (top == MAX - 1) {

printf("Stack overflow\n");

return;

}

stack[++top] = x;

}

char pop() {

if (top == -1) {

printf("Stack underflow\n");

return -1;

}

return stack[top--];

}

int precedence(char op) {

if (op == '+' || op == '-')

return 1;

if (op == '\*' || op == '/')

return 2;

return 0;

}

void infixToPostfix(char\* infix, char\* postfix) {

int i = 0, j = 0;

char ch;

while (infix[i] != '\0') {

ch = infix[i];

if (isalnum(ch)) {

postfix[j++] = ch;

}

else if (ch == '(') {

push(ch);

}

else if (ch == ')') {

while (top != -1 && stack[top] != '(') {

postfix[j++] = pop();

}

pop();

}

else {

while (top != -1 && precedence(stack[top]) >= precedence(ch)) {

postfix[j++] = pop();

}

push(ch);

}

i++;

}

while (top != -1) {

postfix[j++] = pop();

}

postfix[j] = '\0';

}

int main() {

char infix[MAX], postfix[MAX];

printf("Enter infix expression: ");

scanf("%s", infix);

infixToPostfix(infix, postfix);

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

printf("Ruqaiyya Mahreen 1BM23EE044");

return 0;

}

