Write a C program to implement the application of Stack (Notations)

#include <stdio.h>

#include <stdlib.h>

#include <ctype.h>

#include <string.h>

#define MAX 100

char stack[MAX];

int top = -1;

void push(char c) {

if (top == MAX - 1)

printf("Stack overflow\n");

else

stack[++top] = c;

}

char pop() {

if (top == -1)

return -1;

else

return stack[top--];

}

char peek() {

if (top == -1)

return -1;

return stack[top];

}

int precedence(char op) {

if (op == '^')

return 3;

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

return 2;

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

return 1;

else

return 0;

}

void infixToPostfix(char\* infix) {

char postfix[MAX];

int j = 0;

for (int i = 0; i < strlen(infix); i++) {

char c = infix[i];

if (isalnum(c)) {

postfix[j++] = c;

} else if (c == '(') {

push(c);

} else if (c == ')') {

while (peek() != '(') {

postfix[j++] = pop();

}

pop();

} else {

while (precedence(c) <= precedence(peek()) && peek() != '(')

postfix[j++] = pop();

push(c);

}

}

while (top != -1) {

postfix[j++] = pop();

}

postfix[j] = '\0';

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

}

int main() {

char infix[MAX];

printf("Enter an infix expression: ");

scanf("%s", infix);

infixToPostfix(infix);

return 0;

}

A screenshot of a computer

AI-generated content may be incorrect.