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

char stack[40];
int top = -1;

void push(char item) {
    if (top >= 50 - 1) {
        printf("\n Stack overflow");
    } else {
        top = top + 1;
        stack[top] = item;
    }
}

char pop() {
    char item;
    if (top < 0) {
        printf("Stack underflow");
        getchar();
        exit(1);
    } else {
        item = stack[top];
        top = top - 1;
        return item;
    }
}

int is_operator(char symbol) {
    if (symbol == '^' || symbol == '*' || symbol == '/' || symbol == '+' || symbol == '-') {
        return 1;
    } else {
        return 0;
    }
}

int precedence(char symbol) {
    if (symbol == '^') {
        return 3;
    } else if (symbol == '*' || symbol == '/') {
        return 2;
    } else {
        return 0;
    }
}

void InfixToPostfix(char infix_exp[], char postfix_exp[]) {
    int i, j;
    char item;
    char x;

    push('(');
    strcat(infix_exp, ")");
    i = 0;

```

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j = 0;
item = infix_exp[i];
while (item != '\0') {
    if (item == '(') {
        push(item);
    } else if (isdigit(item) || isalpha(item)) {
        postfix_exp[j] = item;
        j++;
    } else if (is_operator(item) == 1) {
        x = pop();
        while (is_operator(x) == 1 && precedence(x) >= precedence(item)) {
            postfix_exp[j] = x;
            j++;
            x = pop();
        }
        push(x);
        push(item);
    } else if (item == ')') {
        x = pop();
        while (x != '(') {
            postfix_exp[j] = x;
            j++;
            x = pop();
        }
    } else {
        printf("\nInvalid infix Expression.\n");
        getchar();
        exit(1);
    }
    i++;
    item = infix_exp[i];
}
if (top > 0) {
    printf("\nInvalid infix Expression.\n");
    getchar();
    exit(1);
}

postfix_exp[j] = '\0';
}

int main() {
    char infix[40], postfix[40];

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

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

    return 0;
}

```

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dl0417@itadmin:~$ gcc infixprad.c
dl0417@itadmin:~$ ./a.out

Enter Infix expression : a+b*c+d/e
Postfix Expression: abc*+de/+
dl0417@itadmin:~$
```