# #10

**SOURCE CODE:**

#include<iostream> #include<bits/stdc++.h> using namespace std;

int prec(char c){

if(c == '/' || c == '\*'){return 2;}

else if(c == '+' || c == '-'){return 1;} else{return -1;}

}

void infixToPostfix(char s[]){ char result[1000];

int resultIndex = 0; int len = strlen(s); char stack[1000]; int stackIndex = -1;

for(int i = 0; i < len; i++){ char c = s[i];

if((c >= 'a' && c <= 'z') || (c >= 'A' && c<= 'Z') || (c >= '0' && c <= '9')){ result[resultIndex++] = c;

}

else{

while(stackIndex >= 0 && (prec(s[i]) < prec(stack[stackIndex]) || prec(s[i]) == prec(stack[stackIndex]))){

result[resultIndex++] = stack[stackIndex--];

}

stack[++stackIndex] = c;

}

}

while(stackIndex >= 0){

result[resultIndex++] = stack[stackIndex--];

}

result[resultIndex] = '\0'; cout << result << endl;

}

int main(){

char exp[50]; bool flag = true; while(flag){

cout << "Choices : " << endl;

cout << "1. Enter expression\n2. Process Infix to Postfix & display the results\n3. Exit" << endl;

int ch;

cout << "Enter your choice : "; cin >> ch;

switch (ch)

{

case 1:

cout << "Enter the expression : "; cin >> exp;

cout<<endl; break;

case 2:

infixToPostfix(exp);

cout << endl; break;

case 3:

cout << "---------Program Ended " << endl;

flag = false; break;

default:

cout << "Invalid choice" << endl; break;

}

}

}