Source Code:

#include <stack>

#include <string>

#include <iostream>

#include <iomanip>

using namespace std;

int main() {

string expression;

stack<double> nameOfStack;

cout << "Type in a postFix express or stop to stop" << endl;

cin >> expression;

while (strcmp(expression.c\_str(), "stop") != 0) { // Not != to stop keep running the program

if (strcmp(expression.c\_str(), "+") == 0) {

double n1 = nameOfStack.top();

nameOfStack.pop();

double n2 = nameOfStack.top();

nameOfStack.pop();

nameOfStack.push(n1 + n2); //if the string is +, pop the last 2 values from the stack and push back their sum

} else if (strcmp(expression.c\_str(), "\*") == 0) {

double n1 = nameOfStack.top();

nameOfStack.pop();

double n2 = nameOfStack.top();

nameOfStack.pop();

nameOfStack.push(n1 \* n2); //else if the string is \*,pop the last 2 values from the stack and push back their product

} else if (strcmp(expression.c\_str(), "-") == 0) {

double n1 = nameOfStack.top();

nameOfStack.pop();

double n2 = nameOfStack.top();

nameOfStack.pop();

nameOfStack.push(n2 - n1); //else if the string is -, pop the last 2 values from the stack and push back the second – the first

} else if (strcmp(expression.c\_str(), "/") == 0) {

double n1 = nameOfStack.top();

nameOfStack.pop();

double n2 = nameOfStack.top();

nameOfStack.pop();

nameOfStack.push(n2 / n1); // else if the string is /, pop the last 2 values from the stack and push back the second / the first

} else if (strcmp(expression.c\_str(), "=") == 0) {

double result = nameOfStack.top();

nameOfStack.pop();

cout << fixed << showpoint << setprecision(5) << result << endl;

} else {

nameOfStack.push(atof(expression.c\_str()));

}

cin >> expression;

}

return 0;

Output:

