// ConsoleApplication3.cpp : This file contains the 'main' function. Program execution begins and ends there.

//

#include<iostream>

#include <vector>

#include<fstream>

using namespace std;

void valid()

{

char ch;

vector<char> openTag;

vector<char> closeTag;

vector<char> display;

ifstream readFile;

readFile.open("html.txt");

if (readFile.fail())

{

cout << "File open Error";

}

else

{

while (readFile >> ch)

{

if (ch == '<')

{

readFile >> ch;

if (ch != '/')

{

while (ch != '>')

{

openTag.push\_back(ch);

readFile >> ch;

}

openTag.push\_back(' ');

}

else if (ch == '/')

{

readFile >> ch;

while (ch != '>')

{

closeTag.push\_back(ch);

readFile >> ch;

}

closeTag.push\_back(' ');

}

}

}

}

cout << "\n\t\t\t\tOpening tags in this HTML document are: \n";

cout << "\t\t\t\t--------------------------------------\n\n\t\t\t\t";

for (char open : openTag)

{

cout << open;

}

cout << "\n\n";

cout << "\n\t\t\t\tClosing tags in this HTML document are: \n";

cout << "\t\t\t\t--------------------------------------\n\n\t\t\t\t";

for (char close : closeTag)

{

cout << close;

}

cout << "\n\n";

cout << "\t\t\t\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n\n";

cout << "\t\t\t\tHTML document Validation Result: \n";

cout << "\t\t\t\t--------------------------------------\n\n\t\t\t\t";

//cout << endl;

int size1, size2;

size1 = openTag.size();

//cout << size1<<"\t";

size2 = closeTag.size();

//cout << size2<<endl;

if (openTag.size() == closeTag.size())

{

for (int i = 0; i < size1; i++)

{

if (openTag[i] == closeTag.back())

{

closeTag.pop\_back();

}

}

cout << "Opening and Closing tags have been matched and they are in proper order\n\n";

cout << "\t\t\t\t--------------------------------------\n\t\t\t\t";

cout << "Result:\t\tValid HTML document\n";

cout << "\t\t\t\t--------------------------------------\n\n\t\t";

}

else

{

if (openTag.size() != closeTag.size())

{

cout << "Opening and Closing tags have not been matched \n\n";

cout << "\t\t\t\t--------------------------------------\n\t\t\t\t";

cout << "Result:\t\tINVALID HTML document\n";

cout << "\t\t\t\t--------------------------------------\n\n\t\t";

}

else

{

cout << "Opening and Closing tags are in improper order \n\n";

cout << "\t\t\t\t--------------------------------------\n\t\t\t\t";

cout << "Result:\t\tINVALID HTML document\n";

cout << "\t\t\t\t--------------------------------------\n\n\t\t";

}

}

}

int main()

{

valid();

}

// Run program: Ctrl + F5 or Debug > Start Without Debugging menu

// Debug program: F5 or Debug > Start Debugging menu

// Tips for Getting Started:

// 1. Use the Solution Explorer window to add/manage files

// 2. Use the Team Explorer window to connect to source control

// 3. Use the Output window to see build output and other messages

// 4. Use the Error List window to view errors

// 5. Go to Project > Add New Item to create new code files, or Project > Add Existing Item to add existing code files to the project

// 6. In the future, to open this project again, go to File > Open > Project and select the .sln file