/// A program that reads the text file Romeo\_julliet.txt and determines the frequency of every word in the file.

/// (c) Ervin Ungureanu 2020

#include <iostream>

#include <fstream>

#include <string>

#include <vector>

using namespace std;

int main()

{

struct wordStruct

{

string word;

int occurs;

};

ifstream inf;

string tempStorage;

string cleaned = "";

vector <wordStruct> allWords;

inf.open("romeo\_julliet.txt", ios\_base::in); //opens the romeo and juliet txt file

if (!inf.is\_open())

{

cout << "File not opened" << endl;

return -1;

}

bool isFound{}; ///flag to skip loop cycle if word already exists

///pushback first word

inf >> tempStorage;

for (int i = 0; i < tempStorage.size(); i++)

{

if (isupper(tempStorage[i]) || isalpha(tempStorage[i]))

{

cleaned += tolower(tempStorage[i]);

}

}

wordStruct word1 = { cleaned, 1 };

allWords.push\_back(word1);

while (!inf.eof())

{

inf >> tempStorage;

cleaned = "";

for (int i = 0; i < tempStorage.length(); i++)

{

if (isalpha (tempStorage[i]))

{

cleaned += tolower(tempStorage[i]);

}

}

for (int i = 0; i < allWords.size(); i++)

{

if (cleaned == allWords[i].word) /// go through previous words to check if already exists

{

allWords[i].occurs++; ///add one to its occurence

isFound = true; ///flag

}

}

if (isFound == true) ///flag to skip loop cycle if word already exists

{

isFound = false;

continue;

}

else ///otherwise create a new word

{

wordStruct word1 = { cleaned, 1 };

allWords.push\_back(word1);

}

isFound = false;

}

for (int i = 0; i < allWords.size(); i++)

{

cout << allWords[i].word << " occurs " << allWords[i].occurs << " time(s)." << endl;

}

return 0;

}