1 Surname1, Name1(student$_num1$)

Listing 1: compile log

```
Console:


*********out_gen.txt**********
TEST 0 output.txt:


ACTUAL:
1
1

CORRECT:
1
1

-------------------------------------
Console:


*********out_gen.txt**********
TEST 1 output.txt:


ACTUAL:
1
0
1
1
0

CORRECT:
1
0
1
1
0

-------------------------------------
Console:


*********out_gen.txt**********
TEST 2 output.txt:


ACTUAL:
1
1
1
0

CORRECT:
1
1
1
0

-------------------------------------

SCORE = 100.0


CONSOLE SCORE = 0.0
```

```
#include <iostream>
#include<fstream>
#include<string>
#include<vector>

using namespace std;

int main()
{
ifstream in("input.txt");//open textfile
ofstream output("output.txt");//open outfile textfile

int entries=0;
string s0;
vector<string>arrwords;//declare vector
while(getline(in,s0))
{
    arrwords.push_back(s0);//push onto vector
    entries++;//inc entries
}
string s1,s2;//declare varibles
int checks=0,s1f=0,s2f=0;//declare varibles
for(int i=0;i<entries/2;i++)
{
s1=arrwords[2*i];
s2=arrwords[(2*i)+1];

//check which sring is longer anf assign it to be the looping variable
if(s1.size()>s2.size())
{
    checks=s1.size();
}
else
{
    checks=s2.size();
}
///check if it is an anangram
for(int r=0;r<checks;r++)
{
     if(isalpha(s1[i]))//check if it is a character
        {
            for (int k=0; k<s1.size(); k++)
            {
                if (tolower(s1[i])==tolower(s1[k]))
                {
                    s1f++;//increase letter found
                }
            }
            for (int j=0; j<s2.size(); j++)
            {
                if (tolower(s1[i])==tolower(s2[j]))
                {
                    s2f++;//increase letter found
                }
            }
        }
}
          if(s1f==s2f)//check if the same amount of the same letter is found
            {
                s1f=0;
                s2f=0;
                output<<"1"<<endl;//output onto textfile
            }
            else
            {
                s1f=0;
                s2f=0;
                output<<"0"<<endl;//output onto textfile
            }
}
```

```
    return 0;
}


FILES IN DIRECTORY

, main.cpp, code.txt, compile.txt, out_gen.txt, run
```

2 Surname2, Name2(student$_number2$)

Listing 2: compile log

```
Console:


*********out_gen.txt**********
TEST 0 output.txt:


ACTUAL:
1
1

CORRECT:
1
1

-------------------------------------
Console:


*********out_gen.txt**********
TEST 1 output.txt:


ACTUAL:
1
0
1
1
0

CORRECT:
1
0
1
1
0

-------------------------------------
Console:


*********out_gen.txt**********
TEST 2 output.txt:


ACTUAL:
0
1
1
0

CORRECT:
1
```

```
1
1
0

------------------------------------

SCORE = 66.66666666666666


CONSOLE SCORE = 0.0
```

```
//Student ID: #######
// Date 4 June 2020

#include <iostream>
#include <fstream>
#include <sstream>
#include <cctype>
#include <cstring>
using namespace std;

//function sorts 2 words, to compare letters
string sortString(string word)
{
    char temp;
    for (int i = 0; i< word.length()-1;i++)
    {
        for (int j = i+1; j < word.length(); j++)
        {
            if (word[i] >= word[j]) // sorting the letters of words
            {
                temp = word[i];
                word[i] = word[j];
                word[j] = temp;
            }
        }
    }
    return word;
}

//function removes spaces form words, converts word to lower case
string editStr(string wordup)
{
    for (int i = 0; i < wordup.length(); i++) //converts all charin string to lower case
    {
     wordup[i] = tolower(wordup[i]);
    }

    for (int j = 0; j < wordup.length(); j++)
    {
        if (isspace(wordup[j]))
     {
         wordup.erase(j,1); // function erases spaces
     }
    }

    return wordup;
}

//function checks if two words are anagrams
bool checkAna(string word, string word2)
{
    word = editStr(word);   // delets spaces for first word
    word2 = editStr(word2); // deletes spaces for word 2
    if (word.length() != word2.length())  //if word legth is not same length, not anagram
    {
        return false;
    }
    else
    {
        word = sortString(word);       // sorts letrers in words
```

```
        word2 = sortString(word2);
        if (word == word2)     // if words have same letters anagram
        {
            return true;
        }
        else
        {
            return false;  // if letters are not same, nit anagram
        }
    }

    return true;
}


int main()
{
    //file stream
    fstream infile;
    ofstream outfile;

    infile.open("input.txt");
    outfile.open("output.txt");

    string temp;
    int isize = 0;

    // gets line from file
    while(getline(infile, temp))
    {
    isize = isize+1;  // gets every 2 lines
    }

    infile.close();
    infile.open("input.txt");

    string arrElems[isize];// arrays tores words from  file
    int counter = 0;// detemines size4 of array
    string temp2;

    while (getline(infile, temp2)) // stores words from file into array
    {
        arrElems[counter] = temp2;
        counter++;
    }


    for (int i = 0; i < isize-1; i=i+2)    // accessing vevery second element in aray for
        comparison
    {
        if (checkAna(arrElems[i], arrElems[i+1]))  // if elements are anagrams ouput 1
    {
        outfile<<"1"<<"\n";
    }
    else
    {
        outfile<<"0"<<"\n"; // if not anagram output 0
    }
    }

    infile.close();
    outfile.close();


    return 0;
}


FILES IN DIRECTORY

, main.cpp, code.txt, compile.txt, out_gen.txt, run
```