

Task 1 - Count lines

Turn the following pseudo code into a Python program:

```
lines=0

open file "test.txt" for reading #(needs a file called test.txt)

for each line in file
    lines=lines+1
next line

print ("The file has ",lines, " lines")
```

Task 2 - Address book

Turn the following pseudo code into a Python program:

```
choice =""

open file "addressBook.txt" for writing

while choice <> "end"
    name=input("What is your friend's name?")

    email=input("What is their email address?")

    strLine = "Name: " + name + " Email: " + email + "\n"

    write strLine to file

    choice=input("Enter end to finish or anything else to continue")
end while

close file
```

Task 3 - Address book with menu

Take the program you wrote for the task 3 and add two options: "add" lets you add a friend to the address book, and "display" shows all the items in the address book file. The program should still end when "end" is entered.

Make sure the file is opened in *append* mode so each time you run the program names are added to the end of the file, instead of overwriting what is already in the file.

In the example below, three names are already in the file when the program runs, and another name is added (Bibby). When the address book is displayed, four names are shown.

```
Choose an option add, display or end:add
What is your friend's name?Bibby
What is your friend's email?bibby29@mail.com
Choose an option add, display or end:display
Name: bill Email: bill@abc.com
Name: bob Email: bob@gmail.com
Name: bubba Email: b@cbc.ca
Name: Bibby Email: bibby29@mail.com
Choose an option add, display or end:end
```



Task 4 - Vowels count

Create a program that opens a file for reading, and reads a line at a time, counting how many vowels are in the line. Keep a total count for vowels and lines, so that at the end of your program, it displays how many lines were read and how many vowels were found. For the test file `oliverTwist.txt` it should find 8420 vowels (note your program should count the vowel whether it is upper or lower case).

```
...
Vowels in this line: 136
Vowels in this line: 0
Vowels in this line: 72
Vowels in this line: 0
Vowels in this line: 86
Lines read: 201
Total vowels found: 8420
```

Task 5 - Dictionary check

Create a program that checks if an input word is found in a dictionary text file. Use the test file `dictionary.txt`. Your program should accept input in any combination of upper and lower case.

```
Enter word:asdasd
That does not seem to be a valid word
Enter word:Zoetrope
Valid dictionary word
```

Task 6 - Find highest and lowest scoring students

Write a Python program that reads a file with student names and marks in. Each line in the file contains the name first, followed by a comma, followed by the mark. Your program should display the highest mark found and the name of the student with that mark, followed by the lowest mark found and the name of the student with that mark. (Hint: you will need to use the `split()` function to do this task)

