

**Objectives:**

- Practice text-file I/O
- Practice string manipulation using string methods and sequence operations

For today's lab you'll need a large data file, so start the lab by downloading the following file to your desktop:

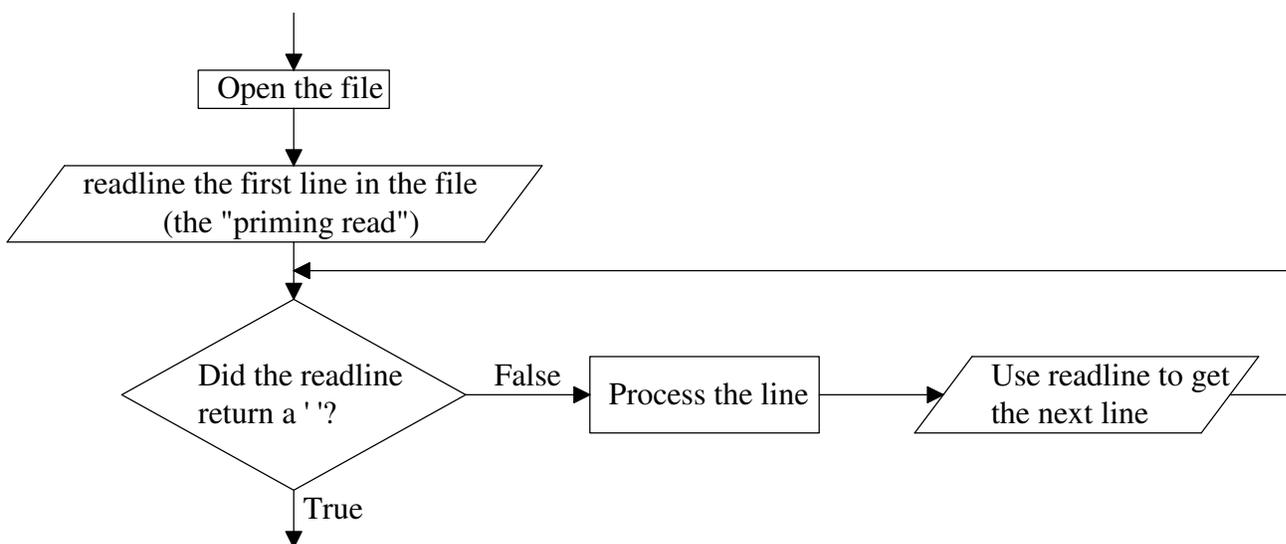
<http://www.cs.uni.edu/~fienup/cs051s10/labs/lab6.zip>

Extract this file to the Desktop (or your flash drive) by right-clicking on lab6.zip icon and selecting Extract All.

**Part A:** Write two programs that count the number lines in the text file dataFile.txt.

- In the first program use a for loop to iterate over each line in the file, such as:
 

```
f = open('filename', 'r')
for line in f:
    print line
print 'done processing file'
```
- In the second program use a while loop to read each line until the "end of file" has been reached. You'll know when the end of file has been reached because the readline() will return an empty string ('') when you try to read past the end of the file. The flowchart for the logic is:



**After you have both programs for part A working correctly, raise your hand and we'll check your work.**

**Part B:** Write a program that counts the number of **each vowel** ('a', 'e', 'i', 'o', 'u', 'y') in the text file dataFile.txt (i.e., the number of 'a's, the number of 'e's, etc.). Recall that you can loop over each character in a string by using a for loop, such as:

```
for character in lineOfTextFromFile:
    print character
print 'done'
```

**After you have the program for part B working correctly, raise your hand and we'll check your work.**

**If you complete all parts of the lab, nothing needs to be turned in for this lab. If you do not get done today, then show me the completed lab in next week's lab period.**

**Make sure that you log off the computer before you leave.**