

Lab 6: Sorting a file

For this lab, write a program which will sort all the lines in a file in reverse alphabetical order, and store the result in a second file. This will require that you ask the user for two filenames: An input file, and an output file. The output file does not need to exist before the program is run.

Documentation for Python's file class is located here:

<http://docs.python.org/library/stdtypes.html>

Also, remember the in-class demo on creating times tables, and encrypting with file input/output. The filename for the times table demo is times.py, in the demos area, and the encryption is shift_using_file.py.

Take a look at the available methods for the list class before you start. Documentation is here:

<http://docs.python.org/tutorial/datastructures.html>

In general, the easiest way to lay out the program will be something like this:

```
Read the file into a string
split into lines
sort the list of lines
write each of the lines in turn into a file
```

Remember the string.split() method! To split text into a list of lines, use:

```
# Assume long_string is the contents of a file, ready into a string
split_string = long_string.split("\n")
```

Once the lines are sorted, you must write them into the output file. But the .write method only takes a single string as input, and you will have a list of strings at this point. A for loop is a simple way to solve the problem. The loop should look something like this:

```
for each line:
    write the line into the file
    write a newline into the file
```

You can write a newline like this (change output_file to the name of your output file if it is different):

```
output_file.write("\n")
```