

Chapter 8

Exercises

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8.1 Write a `createWordList` function to create a list of words from the wordlist file.

8.3 Devise an experiment to measure performance of `createWordList`, `createWordSet`, and `createWordDictionary`. You can use the `time` module with the function `time.time` to get the current clock time, which may be accurate to several milliseconds. Getting the clock time before you start a task and after you complete a task allows you to estimate how long the task takes.

This is very straightforward to call `time.time()` before calling one of the create functions and `time.time()` again afterward. the difference between these two gives the wall-clock time needed to build the list/set/dictionary. You could extend this experiment to show how one of the data structures makes the rest of the program run more quickly as well.

8.10 Evaluate the following statements:

```
l1 = [4,5,3,9,1,6,7]
l1 = l1.sort()
```

What is the value of `l1` when you are done?

8.11 Write a compare function that accepts two frequency dictionary tuples as parameters and compares the tuples using the second element.

8.15 Write a function that returns the most popular ending letter for words. your program will take a list of words, count the ending letter of each word and return the letter whose count is the largest

- 8.19** Write a regular expression pattern to match all words ending in *ing*.
- 8.20** Write a regular expression pattern to match all words with *ss* anywhere in the string.
- 8.22** Write a regular expression pattern to match all the words that start with *st*.
- 8.23** Write a regular expression to match all the four-letter words where the middle two letters are vowels.
- 8.24** Write a function that can extract the host name from a URL. The host name is the part of the URL that comes after `http://` but before the next `/`. Here is a simple one that matches hostnames that consist of letters and the dot character.