

## Outline for October 20, 2021

**Reading:** §7

**Assignments:** Homework 2, due October 20, 2021

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1. Files
  - (a) What is a file?
  - (b) What can you do with it? (For example, read, write, append)
  - (c) Types of files (text, binary)
2. File Input and Output for text files
  - (a) Opening and closing: `open(filename, mode), close()`
  - (b) Reading: `readline(), readlines(), read(), read(n)`
  - (c) Writing: `write(str), writelines(list)`
3. Exception `EOFError` — input function encounters an end of file
4. Examples
  - (a) Print out a named file [`fileio1.py`]
  - (b) Print out a named file and prepend line numbers [`fileio2.py`]
  - (c) Store the output in `filename.lst` [`fileio3.py`]
5. Examples
  - (a) Put lines in a file in random order [`randlines.py`]
  - (b) Read in a list of words from a file, then search it as requested; similar to linear search program [`search-1.py`]
  - (c) Now see how many words you checked total [`search-1c.py`]