

# Exercises

## Day 1

- Read 5 minutes: <https://docs.python.org/3/library/index.html>
- Read 5 minutes: `help(str)`
- **Spend 5 minutes on <http://pythontutor.com> with some simple code you tried.**

Suggestion: try some for loops step by step

Meditation question: Name an advantage of open source

### Project:

Use MS Excel to create a list of at least 25 people's names, titles, phone numbers, and email addresses (Feel free to use <https://www.mockaroo.com> for data inspiration). Save the file as CSV. Use Python's CSV reader to loop over the data. Use a print template to create VCard files (see wikipedia for the VCard format). Use the code from `vcard.py` as a model for creating QR codes from the Vcards (see the REST API links in the cheatsheet).

## Day 2

- Read 5 minutes: printed materials
- Read 5 minutes: `help(list)`, `help(dict)`
- **Read 5 minutes the code for `log_analysis.py` and `grand_tour.py`. Write down your questions for class.**

Meditation question: How would you describe what the with-statement does?

### Project:

Make a list of servers you have access to. Use Python to generate ping's between them. Summarize the ping times in a graph structure (use a dict `d[fromserver, toserver]=pingtime`). Generate graphviz output, possibly showing each node in a position corresponding to its physical location).

## Day 3

- Use your 15 minutes reading time to review the code we cover in class.
- Write down your questions for class.

### Project:

Using nextbus Rest API (<http://nextbus.com/xmlFeedDocs/NextBusXMLFeed.pdf>) ensure the next sf-muni 'N' bus will come to Judah St & La Playa St within 5 minutes

## Day 4

We will do code review of class Projects during day 4.

## Following 2 weeks

Spend 2 weekly hours reviewing class content material, class log files and suggested material in `links.txt`