

# SI206 Discussion 7

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CSV files and nested structures

# CSV Reader/Writer

- Avoids problems
  - Values with commas in them
- Quicker/easier
  - And useful for Proj1!
- Eventually you'll more likely use Pandas for tabular data
  - But for now, do it this way!

# Quick Example

Don't forget to import csv module!

```
>>> import csv
>>> with open('eggs.csv', newline='') as csvfile:
...     spamreader = csv.reader(csvfile, delimiter=' ', quotechar='|')
...     for row in spamreader:
...         print(', '.join(row))
Spam, Spam, Spam, Spam, Spam, Baked Beans
Spam, Lovely Spam, Wonderful Spam
```

Think: when does the file get closed in this example?

# Staring at a blank page

MUCH easier for writing

Note the 'w'

```
import csv
with open('eggs.csv', 'w', newline='') as csvfile:
    spamwriter = csv.writer(csvfile, delimiter=' ',
                             quotechar='|', quoting=csv.QUOTE_MINIMAL)
    spamwriter.writerow(['Spam'] * 5 + ['Baked Beans'])
    spamwriter.writerow(['Spam', 'Lovely Spam', 'Wonderful Spam'])
```

Think: What is a 'delimiter'?

# Assignment

- Data on # of visitors to a public park each month from Jan 2020 – Dec 2022
- Notice header row
- CSV reader defaults all vals to strings – only change when you need to

daily\_visitors

Month	2020	2021	2022
JAN	304	316	306
FEB	395	359	369
MAR	404	387	421
APR	348	403	461
MAY	363	421	472
JUN	435	479	535
JUL	491	548	605
AUG	506	559	628
SEP	404	463	508
OCT	487	407	461
NOV	299	362	390
DEC	337	314	365