DS2000

11/1 - Fri :)

Admin

- mini exam #2 grades out (prob) by EOD
- Hw6 out, due 11/8 9pm ~ last Hw!!
  - ↳ can't be 2nd chance
- one of Hw1-5 can be resubmitted for new grade 11/8 - 11/15 9pm

Agenda

1. Dictionary Recap
2. Dictionary structure
3. Python

1. Dictionary Recap

What happens?

```
d = {}
```
~ create empty dictionary

```
d = {"a": 1,
     "b": [2,3]}
```
~ create dictionary with key/value pairs

"a": 1 — "a" key, 1 value; "b": [2,3] — "b" key, [2,3] value

```
d["c"] = [5,7]
```
~ add key/value pair: key = "c", val = [5,7]

```
d["a"] = 5
print(d["a"])
```
~ change value assoc. with key "a"

{"a": 5, "b": [2,3], "c": [5,7]}

~ 5

```
print(d["c"][0])
```
~ 5

d["c"] ↳ [5,7]

Goal ~ change all values to ∅

```
for k,v in d.items():
    v = ∅
```

```
for k,v in d.items():
    d[k] = ∅
```

↳ shortcut for:

k = "a"
v = 5
v = ∅

k = "b"
v = [2,3]
v = ∅

k = "c"
v = [5,7]
v = ∅

↳ shortcut for:

k = "a"
v = 5
d["a"] = ∅

k = "b"
v = [2,3]
d["b"] = ∅

k = "c"
v = [5,7]
d["c"] = ∅

Left	Right

keys = ['a', 'b', 'c', 'd']
• make new dict w/ these keys
• all values can be ∅
 	
d = {}
for k in keys:
  d[k] = ∅
	lst = list of dictionaries
	[{ _ : _ , _ : _ },
	{ _ : _ , _ : _ }]
	
	↳ print the "b" column (value for every "b" key)
	for dct in lst:
	  print(dct["b"])

2. Dictionary Structure

data: 1920 women voters in Boston

source: data.boston.gov

who is left out?

Goal: How many women of a certain age X registered?

Data ~ name, precinct, husband, age

_ , _ , _ , _

_ , _ , _ , _

~> csv file

↳ one dictionary per person, put into a list

↳ list of dictionaries

[{name: Laney, age: 46},
{name: Ariel, age: 30}]

raw_to_dict

- params: 2 lists (strings)
  raw, keys
- returns: dictionary where
  keys are keys,
  rows are values

count_greater

- params: lst of dicts,
  col name,
  min value
- returns: int, count of values
  in col above min