DS2000
2/28 - Tues. ☂

Admin
- mini viz due 3/3   (no late submissions)
- no quiz this week ¿

Agenda
1. Dictionaries - mechanics
2. Dictionaries - why/when
3. Python ————————————→ Fri

1. Dictionaries - mechanics

Data structure - one label, many values

list [ ]
2D list [[ ]]   } mutable
Tuple ( )   ⟶ immutable
Dictionary { } ⟶ mutable *

Dictionary is like a list, but we have
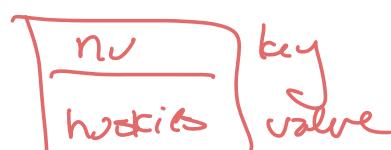   keys instead of positions

Key, value pairs

| k1 | k2 | k3 | k4 | keys
|----|----|----|----|
| v1 | v2 | v3 | v4 | values

Get to value through its key

1. Create
   d = { }
   d = { "nu" : "huskies" }
        ̲   ‾‾‾‾‾‾‾
        key   value

| nu | key
|----|
| huskies | value

2. Add something
   d ["bu"] = "terriers"
      key   value

| nu | bu | key
|----|----|
| huskies | terriers | value

3. Look at one thing

```
print (d ["nu"])
          key
```
huskies
value

4. Look at all the things

```
        →tuple
for key, value  in d.items():
    print (key, value)
```
nu huskies
bu terriers

Dictionaries are mutable
   * keys most be immutable *
        (tuples are ok, lists are not)

   * keys most be distinct *

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