



Admin

- HW5 due 4pm (last second-chance option)
- mini exam #2 10/29

Agenda

1. Dictionary intro
2. Python
3. mini-exam #2

1. Dictionary Intro

- A dictionary is a data structure: one label, many values
- see {}, think dictionary!

create $\rightarrow$ empty $d = \{\}$

add $\rightarrow$ $\textcircled{\otimes}$ value 2
key "2" key/value pair $d["2"] = 2$
 item key value

look at one thing
 $\rightarrow$ provide the key,
get the value

$\text{print}(d["2"])$ 2
 key value

look at all the things
 $\rightarrow$ iterate over a dictionary
looking at every item

for key, value in d.items():
 print(key) 2
 print(value) 2

Can key, value be any data type?

values - anything!

keys - ints or strings (usually)
need to be distinct
can't modify!

⓪ decides key!
useful

{ } vs. []

↳ create
printing
unknown

↳ access a value
one item

Dicts vs. Lists

List

2 4 6 8 → values
0 1 2 3 → positions
⓪

Dictionary

2 4 6 8 → values
"2" "4" "6" "8" → key
⓪

- access values by key instead of position
- ⓪ decides the key

Are there nested dictionaries?

- Yes!
- values can be dictionaries!
(or lists!)

{ key: { key: value, key: value } }

Deciding the order when iterating?

- prev: arbitrary!

- now: respects the order in which you add items

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Smt 29C

3. mini exam #2

- in class 10/29

- whole lecture time
(designed shorter)

- 8.5x11 inch cheat sheet
(one side)

- DAS acc., schedule time

- don't write on backs of pages!

- do the practice problems ;)

topics

1. 1D lists/loops

2. Functions

3. 2D lists/loops

} multiple choice

what code does?

write code