COMP 110

LS19 - Dictionaries

Dictionaries
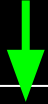
Keys
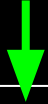
Values

Flavor	Num Orders
Chocolate	12
Vanilla	8
Strawberry	5

Dictionaries

Keys   Values

Flavor	Num Orders
Chocolate	12
Vanilla	8
Strawberry	5

Lists

Indexes   Values

0	12
1	8
2	5

Also called: Map, Hashmap, Key-Value Store

Syntax

Data type:

    name: dict[<key type>, <value type>]
    ice_cream: dict[str, int]

Constructor:

    dict()

Dictionary Operations

Adding elements

We use subscription notation.

<dict name>[<key>] = <value>

ice_cream["chocolate"] = 12

ice_cream["mint"] = 3

Removing elements

Similar to lists, we use pop()

<dict name>.pop(<key>)

ice_cream.pop("mint")

Access + Modify

To access a value, use subscription notation:

<dict name>[<key>]

ice_cream[“vanilla”]

To modify, also use subscription notation:

<dict name>[<key>] = new_value

ice_cream[“vanilla”] = 9   or   ice_cream[“vanilla”] += 1

Length of dictionary

```
len(<dict name>)

len(ice_cream)
```

Check if key in dictionary

<key> in <dict name>

"mint" in ice_cream

"chocolate" in ice_cream

Important Note: Can't Have Multiple of Same _**Key**_

(Duplicate _values_ are okay.)

Keys   Values

Flavor	Num Orders
Chocolate	12
Vanilla	8
Strawberry	5
Chocolate	10

Keys   Values

Flavor	Num Orders
Chocolate	12
Vanilla	8
Strawberry	5
Mint	5