

Week 7 Summary

CSCA08

Winter 2022

Tuples

- Array of objects similar to lists but immutable (can not be modified):

`t = (obj1, obj2, ...)`

- Can be indexed and sliced like lists and strings.

`t[0]`

`t[1:4]` (slice of a tuple is always a tuple)

- One-element tuple:

`(obj1,)`

- Empty tuple:

`()`

Dictionary

- Collection of key-value pairs:

`d = {k1 : v1, k2 : v2, ...}`

- Keys:

- Should be immutable
- Can not be repeated

- Values:

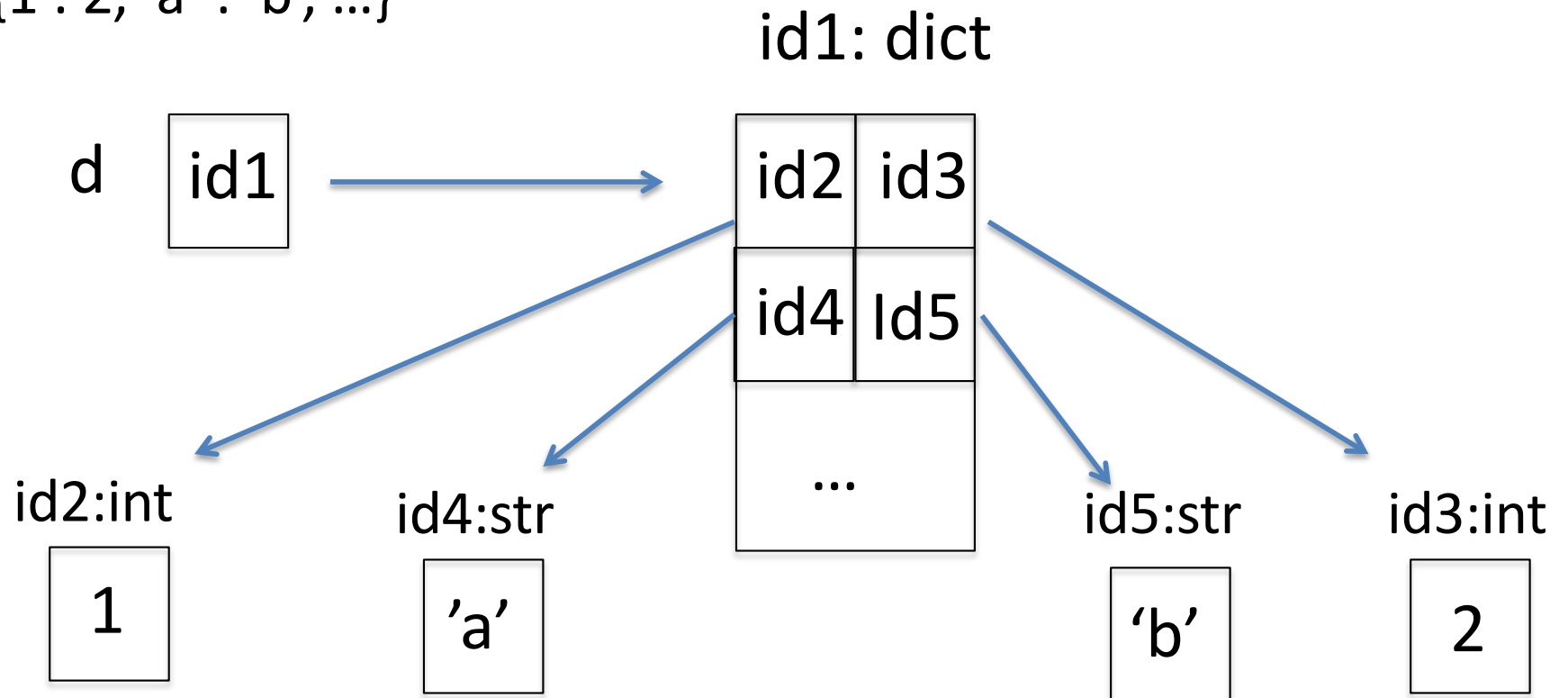
- Can be any object

- Dictionary elements have no index => no slicing, no order
- Values can be accessed through their corresponding keys:

`d[k1] == v1`

Dictionary Memory Model

$d = \{1 : 2, 'a' : 'b', \dots\}$



Modifying Dictionary

- Dictionaries can be modified (mutated) by:
 - Using some dictionary methods (some of them have side-effects, i.e., also return something):
`d.pop(key1), d.popitem()`
 - Assigning a new value to a (already existing or new) key
`d[key2] = val2`
 - Some operators can also modify the dictionary
`del d[key1]`