Python Basics - Dictionaries and Sets Cheat Sheet

by Mario (mariofreitas) via cheatography.com/42813/cs/13219/

Dictionaries and Sets - Syntax

`d = {'a': 1, 'b': 2, 'c': 3}`	Dictionaries are defined with *{key1: value1, key2: value2, ...}*
`d['a']`	Returns the value associated with *'a'* (1)
`d['a'] = 11`	Changes value associated with *'a'* to *11*
`d['d'] = 4`	Adds *'d'* key and associates it with *4* value

Dictionaries - Methods

```
d1 = {'a': 1, 'b': 2, 'c': 3}
d2 = {'d': 4, 'e': 5, 'f': 6}
```

`'a' in d1`	Returns *True* if *'a'* is in *d1* and *False* otherwise (True)
`d1.items()`	Returns a list of *(keys, values)* in *d1* (dict_items([('a', 1), ('b', 2), ('c', 3)]))
`d1.keys()`	Returns a list of keys in *d1* (dict_keys(['a', 'b', 'c']))
`d1.values()`	Returns a list of values in *d1* (dict_values([1, 2, 3]))
`d1.update(d2)`	Updates the values of existing keys in *d1* with their respective in *d2* and adds *d2 keys* and *values* that are not on *d1*
`d1.get('c')`[1]	Returns the value associated with *'c'* and does nothing if *'c'* is not on *d1* (3)
`d1.setdefault('3', 0)`	Do the same as *get()*, but returns *0* if *'3'* is not on *d1* (0)
`d1.pop('c')`	Returns the value associated with *'c'* and removes it from *d1* (3)
`d1.popitem()`	Returns the value associated with a key and removes it from *d1* (3)
`d1.clear()`	Clears the dictionary entirely
`d1.copy()`[2]	Returns a copy of d1

[1] Using get() method prevents KeyError

[2] The copy() method returns a dictionary identical to the original, but with a different ID. It means that they are allocated in different places of memory.

Dictionaries - Loop Through Items

```
d = {'a': 1, 'b': 2, 'c': 3}
for i, j in d.items():
    print(f"Key: {i}, Value: {j}")
```

```
Key: a, Value: 1
Key: b, Value: 2
Key: c, Value: 3
```

Dictionaries - Loop Through Keys

```
d = {'a': 1, 'b': 2, 'c': 3}
for i in d.keys():
    print(f"Key: {i}")
```

```
Key: a
Key: b
Key: c
```

Dictionaries - Loop Through Values

```
d = {'a': 1, 'b': 2, 'c': 3}
for i in d.values():
    print(f"Values: {i}")
```

```
Values: 1
Values: 2
Values: 3
```

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