

### 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
```

<sup>1</sup> Using get() method prevents KeyError

<sup>2</sup> 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
```



By **Mario** (mariofreitas)  
[cheatography.com/mariofreitas/](https://cheatography.com/mariofreitas/)  
[github.com/MarioRaul/](https://github.com/MarioRaul/)

Not published yet.  
 Last updated 21st October, 2017.  
 Page 1 of 1.

Sponsored by **ApolloPad.com**  
 Everyone has a novel in them. Finish Yours!  
<https://apollopad.com>