

Python Programming

Dict 4

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Merge, len, all, any

```
3 dict = {'x': 11, 'b': 22, 'y': 30}
4 dict['a'] = 33
5
6 dict.update({'aaa': 3, 'b': -2}) # merge
7 print(str(dict)) # {'x': 11, 'b': -2, 'y': 30, 'a': 33, 'aaa': 3}
8 # you can pass dict or list of tuples
9
10 print(len(dict)) # 5
11
12 # True if all keys are trye
13 print(all(dict)) # True
14 dict[''] = "hey"
15 print(all(dict)) # False
16 print(any(dict)) # True
17
```

Dict Comprehension

```
4  # without
5  squares = {}
6  for x in range(6):
7      squares[x] = x*x
8  print(squares)
9
10 # with
11 squares = {x: x*x for x in range(6)}
12
13 print(squares)  # {0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25}
```

Constructors

```
2 # most common
3 a = {'one': 1, 'two': 2, 'three': 3}
4 # constructor: pass dict as an argument
5 b = dict({'three': 3, 'one': 1, 'two': 2})
6 # from list of tuples: key/value
7 c = dict([('two', 2), ('one', 1), ('three', 3)])
8 # Use keyword arguments
9 d = dict(one=1, two=2, three=3)
10 # From a dictionary, followed by keywords
11 e = dict({'one': 1, 'three': 3}, two=2)
12 # zip on 2 lists used as key/value
13 f = dict(zip(['one', 'two', 'three'], [1, 2, 3]))
14
15 print(a == b == c == d == e == f)
16
```

fromkeys

```
3 a = [1, 2, 20, 6, 210, 2, 1]
4 d = dict.fromkeys(a)
5 # {1: None, 2: None, 20: None, 6: None, 210: None}
6
7 print(dict.fromkeys(a, 7))
8 # {1: 7, 2: 7, 20: 7, 6: 7, 210: 7}
9
10 unique_keys = dict.fromkeys(a).keys()
11 print(unique_keys) # dict_keys([1, 2, 20, 6, 210])
12 # removed duplicated + preserved the order
13
14 unique_keys = list({10:2, 1:5})
15 print(unique_keys) # [10, 1]
```

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”