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# -*- coding: utf-8 -*-
"""
Created on Sat Oct 10 21:09:00 2015
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Reference: https://docs.python.org/3/tutorial/index.html
"""

print ()

# Dictionaries are unordered set of <key:value> pairs, where the keys are of immutable
# type, and must be unique within one dictionary. Dictionaries are indexed by keys.
# Refered to as “associative memories” or “associative arrays” in other languages.

# this creates an empty dictionary
grades = {}
print (len(grades))
print ()

# this creates a dictionary directly using comma-separated key:value pairs
grades = {'jack':90, 'jill':100, 'joe':99, 'nat':95, 'eric':100, 'aubry':90}
print (grades)
print ()

# this creates a dictionary with the constructor using sequences of key:value pairs
grades = dict([('jack', 90), ('jill', 100), ('joe', 99),
               ('nat', 95), ('eric', 100), ('aubry', 90)])
print (grades)
print ()

# this creates a dictionary with the constructor using keyword arguments
# (can only be done if keys are simple strings)
grades = dict(jack=90, jill=100, joe=90, nat=95, eric=100, aubry=90)
print (grades)
print ()

# this returns list of all keys used in dicitionary in arbitrary order
print (grades.keys())
print ()

# this returns list of all keys used in dicitionary in sorted order
print (sorted(grades.keys()))
print ()

# you can provide the key to extract the corresponding value
print (grades['nat'])
print ()

# you can modify the value associated with a key
grades['aubry'] = 93
print (grades)
print ()

# you can delete a key:value pair from the dictionary
del grades['jack']
print (grades)
print ()
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# you can check whether a key is in the dictionary
print ('hina' in grades)
print ()

# test

imdbRating = dict(interstellar=8.7, unbroken=7.2,
                  divergent=6.8, wild=7.2, neighbors=6.4)
print (imdbRating)

print(imdbRating['interstellar'])

imdbRating['unbroken']=10
print (imdbRating)

print(imdbRating['everest'])

print ()
```