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1. What does an empty dictionary's code look like?

* Solution1: empty\_dict = {}
* Solution2: empty\_dict = dict()

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2. What is the value of a dictionary value with the key 'foo' and the value 42?

* { “foo” : 42 }

==================================================================================3. What is the most significant distinction between a dictionary and a list?

* List is ordered sequence
* Dictionary is unordered data

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4. What happens if you try to access spam['foo'] if spam is {'bar': 100}?

spam = {'bar': 100}  
spam['foo']

* Error!
* KeyError: 'foo'

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5. If a dictionary is stored in spam, what is the difference between the expressions 'cat' in spam and 'cat' in spam.keys()?

spam = {'cat': 100}

'cat' in spam

'cat' in spam.keys()

* Both statements return True and no difference because meaning of both statements are identical.

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6. If a dictionary is stored in spam, what is the difference between the expressions 'cat' in spam and 'cat' in spam.values()?

spam = {'cat': 100}  
print('cat' in spam)  
print('cat' in spam.values())

* 'cat' in spam looks for the key=cat in the spam dictionary
* 'cat' in spam.values()) looks for the value=cat in the spam dictionary
* Hence both are different.

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7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

* spam['color'] = 'black'
* Here, default behaviour of dictionary is- it will updates the “value” if “key” already exists and inserts the (key : value) pair if does not exists.

spam = {'cat': 100}  
spam['color'] = 'black'  
print(spam)  
spam['color'] = 'black'  
print(spam)

* Output  
  {'cat': 100, 'color': 'black'}

{'cat': 100, 'color': 'black'}

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8. How do you "pretty print" dictionary values using which module and function?

import pprint  
dict1 = {  
 "Country": "India",  
 "name1" : {"Name": "Abc", "Age": 23},  
 "name2" : {"Name": "bdc", "Age": 44}  
 }  
  
print("---- Before pretty print ----\n", dict1)  
print("\n---- After pretty print ----")  
pprint.pprint(dict1)

* Output:  
  ---- Before pretty print ----

{'Country': 'India', 'name1': {'Name': 'Abc', 'Age': 23}, 'name2': {'Name': 'bdc', 'Age': 44}}

---- After pretty print ----

{'Country': 'India',

'name1': {'Age': 23, 'Name': 'Abc'},

'name2': {'Age': 44, 'Name':'bdc'}}

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