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

dict1 = dict()

Or

dict1={}

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

dict1 = {‘foo’ : 42}

1. What is the most significant distinction between a dictionary and a list?
2. Dictionary is the collection of key and value pair, whereas list is a sequence of values.
3. Value of list is accessed through index, whereas value in a dictionary is accessed through key.
4. What happens if you try to access spam['foo'] if spam is {'bar': 100}?

KeyError: ‘foo’

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

Assuming ‘cat’ is one of the keys in dictionary, output will be same if we do ‘cat’ in spam and ‘cat’ in spam.keys() which is True. This is because by default if we don’t specify anything ‘cat’ in spam searches the string ‘cat’ in keys.

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

Assuming ‘cat’ is one of the keys in the dictionary, output of ‘cat’ in spam will be True whereas ‘cat’ in spam.values() will be False. This is because ‘cat’ in spam will check if ‘cat’ is one of the keys and if it is then it returns True (based on the assumption). ‘cat’ in spam.values() will return False because ‘cat’ is a key and not value.

1. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

if we don’t have the if condition, it will create a new key-value pair in spam called ‘color’:’black’ if it doesn’t exist. If it exist, it will update the value to ‘black’

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

Module: pprint

Function: pprint

pprint.pprint(spam)