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

Ans: The code for an empty dictionary in Python is:

my\_dict = {}

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

Ans: my\_dict = {'foo': 42}

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

Ans:

The most significant distinction between a dictionary and a list in Python is that a dictionary is an unordered collection of key-value pairs, while a list is an ordered collection of elements. This means that the order of the elements in a list is important, while the order of the key-value pairs in a dictionary is not.

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

Ans: If you try to access spam['foo'] when spam is {'bar': 100}, you will get a KeyError exception. This is because the key 'foo' does not exist in the dictionary spam.

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

Ans:

There is no difference between the expressions 'cat' in spam and 'cat' in spam.keys(). Both expressions will return True if the key 'cat' exists in the dictionary spam.

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

Ans:

The expressions 'cat' in spam and 'cat' in spam.values() are different. The expression 'cat' in spam will check if the key 'cat' exists in the dictionary spam, while the expression 'cat' in spam.values() will check if the value 'cat' exists in the dictionary spam.

7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

Ans:

The shortcut for the following code is to use the setdefault() method. The setdefault() method takes two arguments: the key and the default value. If the key does not exist in the dictionary, the default value will be set for the key.

spam = {'cat': 'meow', 'dog': 'woof'}

spam.setdefault('color', 'black')

print(spam)

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

ANS:

To "pretty print" dictionary values in Python, you can use the pprint module, specifically the pprint function. The pprint module provides a convenient way to display data structures like dictionaries in a more readable and structured format. It can handle nested dictionaries, lists, and other complex data structures.