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

**Ans.1** An empty dictionary's code in Python looks like this:

**empty\_dict = {}**

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

**Ans.2** The value of a dictionary with the key 'foo' and the value 42 would look like this:

**{'foo': 42}**

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

**Ans.3** The most significant distinction between a dictionary and a list is how they store and access data:

* + Dictionary: Stores data in key-value pairs, where each value is associated with a unique key. The keys are used to access the corresponding values, and they must be unique and immutable (e.g., strings, numbers, tuples).
  + List: Stores data in a linear sequence, and each element is indexed with an integer starting from 0. Elements in a list can be accessed using their index.

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

**Ans.4** If you try to access **spam['foo']** and **spam** is **{'bar': 100}**, you will get a **KeyError**. The key 'foo' does not exist in the **spam** dictionary, so attempting to access it will raise an exception.

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

**Ans.5** If a dictionary is stored in **spam**, the expression **'cat' in spam** checks if the key 'cat' exists in the dictionary. It will return **True** if 'cat' is a key in the **spam** dictionary; otherwise, it will return **False**.

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

**Ans.6** If a dictionary is stored in **spam**, the expression **'cat' in spam.values()** checks if the value 'cat' exists in any of the values within the dictionary. It will return **True** if 'cat' is found as a value in the **spam** dictionary; otherwise, it will return **False**.

7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

**Ans.7** **spam.setdefault**('color', 'black')

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

**Ans.8**  import pprint

my\_dict = {'name': 'vasu', 'age': 20, 'city': 'delhi'}

pprint.pprint(my\_dict)