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

**ANSWER:** an empty dictionary is represented by curly braces {} in python

My\_dict={}

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

**ANSWER** :value= 42

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

**ANSWER;** dictionary consist of key and value pair enclosed in {} , while list consist of values only enclosed by []

**For example;** my\_dict={‘Nairobi’: ‘Kenya’} while list=[234, “lion”,1,4]

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

**ANSWER**; it through an error key error because the key 'foo' does not exist in the dictionary spam.

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

**ANSWER;** 'cat' in spam checks if the key 'cat' exists in the dictionary spam. While ‘cat’ in spam.keys() checks checks if 'cat' is present in that list of keys. retrieves a list of keys and then checks for ‘cat’ in that list.

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

7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

**Answer:** A shortcut for the given code can be achieved using **the dict.setdefault() method**. This method sets the value for a specified key in a dictionary if the key is not already present. If the key is present, it returns the corresponding value without modifying the dictionary. Here's how you can use it:

Spam.setdefault(‘color’: ‘black’)

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

**Answer:** we use pprint module in Python. Import pprint

Example dictionary: my\_dict = {'name': 'John', 'age': 30, 'city': 'New York'}

print the dictionary pprint.pprint(my\_dict)