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

**Dict={}**

**Type(Dict) #Will return dict**

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

**Dict={‘foo’:42}**

**Dict[‘foo’] will returns 42**

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

**Data Storage:**

* 1. **List: A list is an ordered collection of elements, and each element is accessed by an index (an integer) starting from 0. Lists store data in a linear fashion, with elements following one another in a specific order.**
  2. **Dictionary: A dictionary is an unordered collection of key-value pairs, where each key is unique. Instead of using numeric indices, you access values in a dictionary by using their associated keys. Dictionaries store data in a key-value mapping format.**

**Accessing Data:**

* 1. **List: In a list, we access elements by their position (index) within the list. For example, my\_list[0] would access the first element of the list.**
  2. **Dictionary: In a dictionary, we access values by specifying their corresponding keys. For example, my\_dict['key'] would access the value associated with the key 'key'.**

1. **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()?**

**'cat' in spam.keys() : it means ‘cat ‘ is unique dictionary key.**

**expressions 'cat' in spam: cat in spam**

* **This expression checks whether the key ‘cat’ exists in the dictionary spam.**
* **If ‘cat’ is a key in spam, it will returnTrue. If ‘cat’ is not a key in spam, 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()?**

**'cat' in spam.values() : checks weather value cat present in any value in spam dictionary.**

**If cat is present in any of the key value pair in spam dictionary it will return true otherwise it will return false**

**7. What is a shortcut for the following code?**

**if 'color' not in spam:**

**spam['color'] = 'black'**

**spam.setdefault(‘color’,’black’)**

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

**The pprint.pprint() function will format the dictionary with line breaks and indentation, making it easier to read, especially for complex nested dictionaries.**

**import pprint**