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

dict = { }

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

Dict = {“foo” : 42}

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

* A list refers to a collection of various index value pairs , A dictionary refers to a hashed structure of various pairs of keys and values.
* A list is an ordered sequence of objects, whereas dictionaries are unordered sets.
* Items in dictionaries are accessed via keys and not via their position.
* List is a sequential data type i.e. they are indexed. Dictionary is a mapping datatype.(Both List and Dictionary are mutable datatypes.)

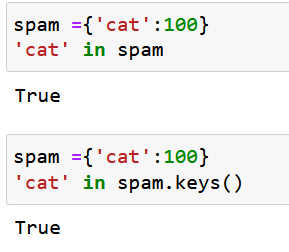
|  |  |  |
| --- | --- | --- |
| **Parameters** | **List** | **Dictionary** |
| Basics | 1. A list refers to a collection of various index value pairs like that in the case of an array in C++. | 1. A dictionary refers to a hashed structure of various pairs of keys and values. |
| Creation | 1. We can create a list by placing all the available elements into a [ ] and separating them using “,” commas. | 1. We can create a dictionary by placing all the available elements into a { } in the form of a key:vale. Here, we have to separate each pair of available key-values using the “,” commas. |
| Data Type | 1. The indices in the case of a list are basically integers that start from the value 0. | 1. The keys present in a dictionary can easily be of any given data type. |
| Mode of Accessing | 1. We can access the elements in a key using indices. | 1. We can access the elements present in a dictionary using the key-values. |

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

Shows key error

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

There is no difference. The in operator checks whether a value exists as a key in the dictionary. 'cat' in spam.keys() checks whether there is a 'cat' key in the dictionary, while 'cat' in spam. values() checks whether there is a value 'cat' for one of the keys in spam .



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

spam.keys() checks whether there is a 'cat' key in the dictionary, while 'cat' in spam. values() checks whether there is a value 'cat' for one of the keys in spam .

Graphical user interface, text, application, chat or text message

Description automatically generated

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

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

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

## setdefault() Method

The setdefault() method is a nice shortcut to ensure that a key exists.

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

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

If we import the pprint module into your programs, we’ll have access to the pprint() and pformat() functions that will “pretty print” a dictionary’s values. This is helpful when we want a cleaner display of the items in a dictionary than what print() provides.

Graphical user interface, text, application, email

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