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

Ans1

empty\_dict = {}

empty\_dict = dict()

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

Ans2

my\_dict = {'foo': 42}

value\_of\_foo = my\_dict['foo']

print(value\_of\_foo)

o/p 42

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

Ans3

|  |  |
| --- | --- |
| Dictionay | List |
| values using keys, which can be of any immutable type such as strings, integers, or tuples. Each key in a dictionary is unique, and its associated value can be any object add, remove, and modify key-value pairs in a dictionary.  dictionary is represented by curly braces {} | elements using their position or index in the list. Each element in the list is assigned an index based on its position, starting from 0 add, remove, and modify elements in a list.  list is represented by square brackets [] |

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

Ans4

KeyError will be raised 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()?

Ans5

Dictionary is stored in spam, the expressions 'cat' in spam and 'cat' in spam.keys() will evaluate to the same result, but there is a minor difference between them.

The expression 'cat' in spam checks whether the key 'cat' exists in the dictionary spam. If 'cat' is a key in the dictionary spam, the expression will return True, otherwise, it will return False.

The expression 'cat' in spam.keys() checks whether the key 'cat' exists in the list of keys of the dictionary spam. The keys() method returns a list of all the keys in the dictionary, and the expression 'cat' in spam.keys() checks whether the key 'cat' is in this list.

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

Ans6

Dictionary is stored in spam, the expressions 'cat' in spam and 'cat' in spam.values() will have different meanings and results.

The expression 'cat' in spam checks if the key 'cat' exists in the keys of the dictionary spam. If 'cat' is a key in the dictionary spam, the expression will return True, otherwise, it will return False.

the expression 'cat' in spam.values() checks if the value 'cat' exists in any of the values in the dictionary spam. If 'cat' is a value in any of the key-value pairs in the dictionary spam, the expression 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’

ans7

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

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

Ans8

Using pprint module

import pprint

my\_dict = {'name': 'John', 'age': 30, 'address': {'street': 'Main St', 'city': 'New York'}}

pprint.pprint(my\_dict)