PYTHON ASSIGNMENT – 5

QUESTIONS ;

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

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

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

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

5. If a dictionary is stored in spam, what is the difference between the expressions 'cat' in spam and

'cat' in spam.keys()?

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'

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

SOLUTIONS:

1. An empty dictionary's code looks like {}. It is represented by curly braces with no key-value pairs inside.

2. The value of a dictionary with the key **'foo'** and the value **42** would be represented as {**'foo': 42**}.

3. The most significant distinction between a dictionary and a list is how they store and access data. In a dictionary, data is stored as key-value pairs, allowing you to access values using their associated keys. In contrast, a list is an ordered collection of elements, and access is based on the position or index of elements.

4. If you try to access **spam['foo']** and **spam** is { **'bar': 100**}, it will raise a **KeyError** because there is no key **'foo'** in the dictionary.

5. If a dictionary is stored in **spam**, the expression **'cat' in spam** checks if the key **'cat'** exists in the dictionary. The expression **'cat' in spam.keys()** is equivalent; it also checks for the presence of the key **'cat'**.

6. If a dictionary is stored in **spam**, the expression **'cat' in spam** checks if the key **'cat'** exists in the dictionary. The expression **'cat' in spam.values()** checks if the value **'cat'** exists in any of the values in the dictionary.

7. The shortcut for the given code is to use the **setdefault()** method:

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

This method checks if the key **'color'** is present in the dictionary **spam**. If it is not present, it adds the key **'color'** with the default value **'black'**.

8. To "pretty print" dictionary values, you can use the **pprint** module (pretty-print) and its **pprint** function. Here's an example:

```
import pprint


my_dict = {'a': 1, 'b': 2, 'c': 3}


# Pretty print the dictionary

pprint.pprint(my_dict)
```

This will print the dictionary in a more readable and organized format. The **pprint** module provides additional options for formatting complex data structures.