Assignment 5 (Python Basics):

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Note: The answers are in blue color

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}
dict.values()

```
dict_values([42])
```

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

In a list, we have the elements ordered and if I have to retrieve a particular element, I will need to enter its index value. However, a dictionary comprises of key value pairs. I could retrieve a specific value by passing in the dict['key1']. Thus, the contents of dictionary are not ordered.

Additionally, a list is enclosed within a square bracket while a dictionary is enclosed within flower brackets {}.

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

spam = {'bar': 100}
spam['foo']

KeyError   Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_17008\3999281786.py in <module>
----> 1 spam['foo']

KeyError: 'foo'

As there is no key value with 'foo' an error is returned, or a key error is returned.

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()?

spam = {'cat': 15}
print(spam['cat'])
print(spam.keys())

```
15
dict_values([15])
```

While in the first instance, the value of key i.e. cat is returned while in the other one also, the value of cat key is returned.

7. What is a shortcut for the following code?

if 'color' not in spam:

       spam['color'] = 'black'

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

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

The following method could be used:
pprint.pprint()