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

```
1 #empty dictionary
2 dict1={}
3 print(dict1)
```

```
    {}
```

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

```
1 dict2={'foo':42}
2 print(dict2)
```

```
    {'foo': 42}
```

```
1 print(dict2.values())
```

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

42 will be dictonary value for dictionary 'dict2' having key value is 'foo'

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

lists are being used to store ordered and sequencial Data in other hand dictionery is beine used to store large amount of data easy and quick access.

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

```
1 spam={'bar':100}
```

```
1 spam['foo']
```

```
    --------------------------------------------------------------------
    KeyError                                  Traceback (most recent call last)
    <ipython-input-9-9b5a94d1de8d> in <cell line: 1>()
    ----> 1 spam['foo']

    KeyError: 'foo'
```

```
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```

this is the answer ,means we got this kind of error if we apply the given conditions.

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

```
1 spam={1:{'cat':2}}
```

```
1 'cat' in spam
```

```
    False
```

```
1 'cat' in spam.keys()
```

```
    False
```

```
1 'cat' in spam.values()
```

```
    False
```

```
1 spam2={'cat':{'1':2}}
```

```
1 'cat' in spam2
```

```
True
```

```
1 'cat' in spam2.keys()
```

```
True
```

```
1 'cat' in spam2.values()
```

```
False
```

There is no difference. The in operator checks whether a value exists as a key in the dictionary. 'cat' in spam 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()?

```
1 'cat' in spam2
```

```
True
```

This is checking whether 'cat' is present in spam2.keys() or not.

```
1 'cat' in spam2.values()
```

```
False
```

This is checking 'cat' is present in spam2.values() or not.

7. What is a shortcut for the following code?

```
1. if 'color' not in spam:
2. spam['color'] = 'black'
```

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

```
'black'
```

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

```
1 import pprint
2
3 my_dict = {'key1': 'value1', 'key2': 'value2', 'key3': 'value3'}
4 pprint.pprint(my_dict)
```

```
{'key1': 'value1', 'key2': 'value2', 'key3': 'value3'}
```

module name is pprint and

function name pprint()

```
1
```