Python Basic Assignment 5

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

An empty dictionary is often represented by two empty curly brackets d = {} or d = dict()

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

```
In [1]: {'foo':42}
Out[1]: {'foo': 42}
```

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

Dictionaries are represented by {} where as listed are represented by [] The Items stored in a dictionary are Unordered , while the items in a list are ordered

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

we will get a keyError KeyError: 'foo'

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 operator checks whether a value exits as a key in the dictionary or not

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

'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.

7. What is a shortcut for the following code?

if 'color' not in spam: spam['color'] = 'black';

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

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

we can pretty print a dictionary using three functions

1. by using pprint() function of pprint module

- Note: pprint() function doesnot prettify nested dictionaries

1. by using dumps() method of json module
2. by using dumps() method of yaml module

```python
ndict = [
    {'Name': 'John', 'Age': '23', 'Residence': {'Country':'USA', 'City': 'New York'}},
    {'Name': 'Jose', 'Age': '44', 'Residence': {'Country':'Spain', 'City': 'Madrid'}},
    {'Name': 'Anne', 'Age': '29', 'Residence': {'Country':'UK', 'City': 'England'}},
    {'Name': 'Lee', 'Age': '35', 'Residence': {'Country':'Japan', 'City': 'Osaka'}}
]

print('Printing using print() function\n',ndict)
print('-'*70)
import pprint
print('Printing using pprint() funciton')
pprint.pprint(ndict)
print('-'*70)
import json
dump = json.dumps(ndict, indent=4)
print('Printing using dumps() method\n', dump)
print('-'*70)
import yaml
dump = yaml.dump(ndict)
print('Printing using dump() method\n', dump)
```

```
Printing using print() function
 [{'Name': 'John', 'Age': '23', 'Residence': {'Country': 'USA', 'City': 'New York'}},
{'Name': 'Jose', 'Age': '44', 'Residence': {'Country': 'Spain', 'City': 'Madrid'}},
{'Name': 'Anne', 'Age': '29', 'Residence': {'Country': 'UK', 'City': 'England'}}, {'N
ame': 'Lee', 'Age': '35', 'Residence': {'Country': 'Japan', 'City': 'Osaka'}}]
------------------------------------------------------------------------
Printing using pprint() funciton
[{'Age': '23',
  'Name': 'John',
  'Residence': {'City': 'New York', 'Country': 'USA'}},
 {'Age': '44',
  'Name': 'Jose',
  'Residence': {'City': 'Madrid', 'Country': 'Spain'}},
 {'Age': '29',
  'Name': 'Anne',
  'Residence': {'City': 'England', 'Country': 'UK'}},
 {'Age': '35',
  'Name': 'Lee',
  'Residence': {'City': 'Osaka', 'Country': 'Japan'}}]
------------------------------------------------------------------------
Printing using dumps() method
 [
    {
        "Name": "John",
        "Age": "23",
        "Residence": {
            "Country": "USA",
            "City": "New York"
        }
    },
    {
        "Name": "Jose",
        "Age": "44",
        "Residence": {
            "Country": "Spain",
            "City": "Madrid"
        }
    },
    {
        "Name": "Anne",
        "Age": "29",
        "Residence": {
            "Country": "UK",
            "City": "England"
        }
    },
    {
        "Name": "Lee",
        "Age": "35",
        "Residence": {
            "Country": "Japan",
            "City": "Osaka"
        }
    }
]
------------------------------------------------------------------------
Printing using dump() method
 - Age: '23'
   Name: John
   Residence:
```

```
        City: New York
        Country: USA
   - Age: '44'
     Name: Jose
     Residence:
        City: Madrid
        Country: Spain
   - Age: '29'
     Name: Anne
     Residence:
        City: England
        Country: UK
   - Age: '35'
     Name: Lee
     Residence:
        City: Osaka
        Country: Japan
```

In [ ]: