# *Assignment 5*

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

**Answer:**

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

#### 2.what is the value of dictionary value with key 'foo' and the value 42 ?

**Answer:**

{'foo':42}

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

**Answer:**

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} ?

**Answer:**

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() ?

**Answer:**

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() ?

**Answer:**

'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'

**Answer:**

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

#### 8.How do you 'pretty print' dictionary values using which modules and function ?

**Answer:**

we can pretty print a dictionary using three functions

1. by using pprint() function of pprint module
   * **Note:** pprint() function doesnot prettify nested dictionaries
2. by using dumps() method of json module
3. by using dumps() method of yaml module

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'}}, {'Name': '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