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

**Ans:** empty dictionary can be 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?**

**Ans:** >>> {'foo':42}

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

**Ans:** Dictionaries are represented by {} whereas 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}?**

**Ans:** 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()?**

**Ans:** There is no difference here for dictionary is stored in spam. 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()?**

**Ans:** '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'

**Ans:** >>> spam.setdefault('color','black')

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

**Ans:** we can “pretty print” a dictionary using three functions;

by using pprint() function of pprint module

### pprint() function does not prettify nested dictionaries.

by using dumps() method of json module

by using dumps()method of yaml module

**Example:**

**Input: workbench: “Jupyter Notebook, python 3.0 ipykernel”**

**In [1]:**

ndict **=** [

{'Name': 'Dhananjay', 'Age': '30', 'Residence': {'Country':'India', 'City': 'Dhule'}},

{'Name': 'Mira', 'Age': '27', 'Residence': {'Country':'India', 'City': 'Pune'}},

{'Name': 'Siddhu', 'Age': '27', 'Residence': {'Country':'India', 'City': 'Pune'}},

{'Name': 'Aasha', 'Age': '23', 'Residence': {'Country':'India', 'City': 'Mumbai'}}

]

**In [2]:**

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)

**[Output]**

Printing using print() function

[{'Name': 'Dhananjay', 'Age': '30', 'Residence': {'Country': 'India', 'City': 'Dhule'}}, {'Name': 'Mira', 'Age': '27', 'Residence': {'Country': 'India', 'City': 'Pune'}}, {'Name': 'Siddhu', 'Age': '27', 'Residence': {'Country': 'India', 'City': 'Pune'}}, {'Name': 'Aasha', 'Age': '23', 'Residence': {'Country': 'India', 'City': 'Mumbai'}}]

----------------------------------------------------------------------

Printing using pprint() funciton

[{'Age': '30',

'Name': 'Dhananjay',

'Residence': {'City': 'Dhule', 'Country': 'India'}},

{'Age': '27',

'Name': 'Mira',

'Residence': {'City': 'Pune', 'Country': 'India'}},

{'Age': '27',

'Name': 'Siddhu',

'Residence': {'City': 'Pune', 'Country': 'India'}},

{'Age': '23',

'Name': 'Aasha',

'Residence': {'City': 'Mumbai', 'Country': 'India'}}]

----------------------------------------------------------------------

Printing using dumps() method

[

{

"Name": "Dhananjay",

"Age": "30",

"Residence": {

"Country": "India",

"City": "Dhule"

}

},

{

"Name": "Mira",

"Age": "27",

"Residence": {

"Country": "India",

"City": "Pune"

}

},

{

"Name": "Siddhu",

"Age": "27",

"Residence": {

"Country": "India",

"City": "Pune"

}

},

{

"Name": "Aasha",

"Age": "23",

"Residence": {

"Country": "India",

"City": "Mumbai"

}

}

]

----------------------------------------------------------------------

Printing using dump() method

- Age: '30'

Name: Dhananjay

Residence:

City: Dhule

Country: India

- Age: '27'

Name: Mira

Residence:

City: Pune

Country: India

- Age: '27'

Name: Siddhu

Residence:

City: Pune

Country: India

- Age: '23'

Name: Aasha

Residence:

City: Mumbai

Country: India