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

**Ans:** 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?**

**Ans:** {'foo':42}

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

**Ans:** 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}?**

**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 . 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 modules and function?**

**Ans:** 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

**Input:-**

ndict **=** [

{'Name': 'Rahul', 'Age': '21', 'Residence': {'Country':'Amercia', 'City': 'New York'}},

{'Name': 'John', 'Age': '36', 'Residence': {'Country':'Europe', 'City': 'Madrid'}},

{'Name': 'Maria', 'Age': '39', 'Residence': {'Country':'Germany', 'City': 'England'}},

{'Name': 'Sunny ', 'Age': '35', 'Residence': {'Country':'India', 'City': 'Osaka'}}

]

print('Printing using print() function\n',ndict)

print('-'**\***30)

**import** pprint

print('Printing using pprint() funciton')

pprint**.**pprint(ndict)

print('-'**\***30)

**import** json

dump **=** json**.**dumps(ndict, indent**=**4)

print('Printing using dumps() method\n', dump)

print('-'**\***30)

**import** yaml

dump **=** yaml**.**dump(ndict)

print('Printing using dump() method\n', dump)

**Output:-**

Printing using print() function

[{'Name': 'Rahul', 'Age': '21', 'Residence': {'Country': 'Amercia', 'City': 'New York'}}, {'Name': 'John', 'Age': '36', 'Residence': {'Country': 'Europe', 'City': 'Madrid'}}, {'Name': 'Maria', 'Age': '39', 'Residence': {'Country': 'Germany', 'City': 'England'}}, {'Name': 'Sunny', 'Age': '35', 'Residence': {'Country': 'India', 'City': 'Osaka'}}]

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Printing using pprint() funciton

[{'Age': '21',

'Name': 'Rahul',

'Residence': {'City': 'New York', 'Country': 'Amercia'}},

{'Age': '36',

'Name': 'John',

'Residence': {'City': 'Madrid', 'Country': 'Europe'}},

{'Age': '39',

'Name': 'Maria',

'Residence': {'City': 'England', 'Country': 'Germany'}},

{'Age': '35',

'Name': 'Sunny',

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

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Printing using dumps() method

[

{

"Name": "Rahul",

"Age": "21",

"Residence": {

"Country": "Amercia",

"City": "New York"

}

},

{

"Name": "John",

"Age": "36",

"Residence": {

"Country": "Europe",

"City": "Madrid"

}

},

{

"Name": "Maria",

"Age": "39",

"Residence": {

"Country": "Germany",

"City": "England"

}

},

{

"Name": "Sunny",

"Age": "35",

"Residence": {

"Country": "India",

"City": "Osaka"

}

}

]

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Printing using dump() method

- Age: '21'

Name: Rahul

Residence:

City: New York

Country: Amercia

- Age: '36'

Name: John

Residence:

City: Madrid

Country: Europe

- Age: '39'

Name: Maria

Residence:

City: England

Country: Germany

- Age: '35'

Name: Sunny

Residence:

City: Osaka

Country: India