

ASSIGNMENT 5 SOLUTION

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 exists 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

by using `pprint()` function of `pprint` module Note: `pprint()` function doesnot prettify nested dictionaries by using `dumps()` method of `json` module by using `dumps()` method of `yaml` module

In [1]:

```
1 ndict = [  
2     {'Name': 'John', 'Age': '23', 'Residence': {'Country': 'USA', 'City': 'New York'}},  
3     {'Name': 'Jose', 'Age': '44', 'Residence': {'Country': 'Spain', 'City': 'Madrid'}},  
4     {'Name': 'Anne', 'Age': '29', 'Residence': {'Country': 'UK', 'City': 'England'}},  
5     {'Name': 'Lee', 'Age': '35', 'Residence': {'Country': 'Japan', 'City': 'Osaka'}}  
6 ]  
7  
8 print('Printing using print() function\n',ndict)  
9 print('-'*70)  
10 import pprint  
11 print('Printing using pprint() function')  
12 pprint.pprint(ndict)  
13 print('-'*70)  
14 import json  
15 dump = json.dumps(ndict, indent=4)  
16 print('Printing using dumps() method\n', dump)  
17 print('-'*70)  
18 import yaml  
19 dump = yaml.dump(ndict)  
20 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() function

```
[{'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

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