

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

1.by using pprint() function of pprint module

- **Note:** pprint() function doesnt prettify nested dictionaries

2.by using dumps() method of json module

3.by using dumps() method of yaml module

In [1]:

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

Printing using pprint() funciton

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

```
{'Age': '35',  
  'Name': 'Lee',  
  'Residence': {'City': 'Osaka', 'Country': 'Japan'}}]
```

Printing using dumps() method

```
[  
  {  
    "Name": "Anny",  
    "Age": "23",  
    "Residence": {  
      "Country": "USA",  
      "City": "New York"  
    }  
  },  
  {  
    "Name": "Rohit",  
    "Age": "44",  
    "Residence": {  
      "Country": "Spain",  
      "City": "Madrid"  
    }  
  },  
  {  
    "Name": "Jose",  
    "Age": "29",  
    "Residence": {  
      "Country": "UK",  
      "City": "England"  
    }  
  },  
  {  
    "Name": "Lee",  
    "Age": "35",  
    "Residence": {  
      "Country": "Japan",  
      "City": "Osaka"  
    }  
  }  
]
```

Printing using dump() method

```
- Age: '23'  
  Name: Anny  
  Residence:  
    City: New York  
    Country: USA  
- Age: '44'  
  Name: Rohit
```

Residence:

City: Madrid

Country: Spain

- Age: '29'

Name: Jose

Residence:

City: England

Country: UK

- Age: '35'

Name: Lee

Residence:

City: Osaka

Country: Japan