

Assignment 5 Solutions

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 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 `{}` where as listed are represented by `[]`. The Items stored in a dictionary are Unordered , while the items in a list are ordere.

a dictionary stores elements as key-value pairs, each having an associated key. The key can access the given element in a list. Curly braces `{}` are used to create a dictionary in Python. A list can also store duplicate elements, whereas, in a dictionary, every key should be unique

4. What happens if you try to access `spam['foo']` if `spam` is `{'bar': 100}`?

ANS: we will get a `keyError` `KeyError: 'foo'`

In [1]:

```
1 spam = {'bar': 100}
2 spam ['foo']
```

```
-----
KeyError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6864\1078832278.py in <module>
      1 spam = {'bar': 100}
----> 2 spam ['foo']
```

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')

In [4]:

```
1 if 'color' not in spam:
2     spam['color'] = 'black'
3 spam.setdefault('color','black')
```

Out[4]:

'black'

8. How do you "pretty print" dictionary values using which module 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

In [7]:

```

1 ndict = [
2     {'Name': 'ABHI', 'Age': '23', 'Residence': {'Country': 'INDIA', 'City': 'NASHIK'}},
3     {'Name': 'ROHIT', 'Age': '35', 'Residence': {'Country': 'INDIA', 'City': 'MUMBAI'}},
4     {'Name': 'LUSEE', 'Age': '45', 'Residence': {'Country': 'UK', 'City': 'ENGLAND'}},
5     {'Name': 'PANDYA', 'Age': '54', 'Residence': {'Country': 'JAPAN', 'City': 'OSAKA'}}
6 ]
7
8 print('Printing using print() function\n',ndict)
9 print('-'*60)
10 import pprint
11 print('Printing using pprint() funciton')
12 pprint.pprint(ndict)
13 print('-'*60)
14 import json
15 dump = json.dumps(ndict, indent=4)
16 print('Printing using dumps() method\n', dump)
17 print('-'*60)
18 import yaml
19 dump = yaml.dump(ndict)
20 print('Printing using dump() method\n', dump)

```

Printing using print() function

```
[{'Name': 'ABHI', 'Age': '23', 'Residence': {'Country': 'INDIA', 'City': 'NASHIK'}}, {'Name': 'ROHIT', 'Age': '35', 'Residence': {'Country': 'INDIA', 'City': 'MUMBAI'}}, {'Name': 'LUSEE', 'Age': '45', 'Residence': {'Country': 'UK', 'City': 'ENGLAND'}}, {'Name': 'PANDYA', 'Age': '54', 'Residence': {'Country': 'JAPAN', 'City': 'OSAKA'}}]
```

Printing using pprint() funciton

```
[{'Age': '23',
  'Name': 'ABHI',
  'Residence': {'City': 'NASHIK', 'Country': 'INDIA'}},
 {'Age': '35',
  'Name': 'ROHIT',
  'Residence': {'City': 'MUMBAI', 'Country': 'INDIA'}},
 {'Age': '45',
  'Name': 'LUSEE',
  'Residence': {'City': 'ENGLAND', 'Country': 'UK'}},
 {'Age': '54',
  'Name': 'PANDYA',
  'Residence': {'City': 'OSAKA', 'Country': 'JAPAN'}}]
```

Printing using dumps() method

```
[
  {
    "Name": "ABHI",
    "Age": "23",
    "Residence": {
      "Country": "INDIA",
      "City": "NASHIK"
    }
  },
  {
    "Name": "ROHIT",
    "Age": "35",
    "Residence": {
      "Country": "INDIA",
      "City": "MUMBAI"
    }
  }
]
```

```
    }  
  },  
  {  
    "Name": "LUSEE",  
    "Age": "45",  
    "Residence": {  
      "Country": "UK",  
      "City": "ENGLAND"  
    }  
  },  
  {  
    "Name": "PANDYA",  
    "Age": "54",  
    "Residence": {  
      "Country": "JAPAN",  
      "City": "OSAKA"  
    }  
  }  
}
```

Printing using dump() method

```
- Age: '23'  
  Name: ABHI  
  Residence:  
    City: NASHIK  
    Country: INDIA  
- Age: '35'  
  Name: ROHIT  
  Residence:  
    City: MUMBAI  
    Country: INDIA  
- Age: '45'  
  Name: LUSEE  
  Residence:  
    City: ENGLAND  
    Country: UK  
- Age: '54'  
  Name: PANDYA  
  Residence:  
    City: OSAKA  
    Country: JAPAN
```

In []:

1	
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