

## Assignment-5

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

Ans: The code of the Empty Dictionary looks like as follows

```
D={ }
```

2. What is the value of a dictionary value with the key 'foo' and the value 42?

Ans: The dictionary value with the key 'foo' is 42

```
d={'foo':42}  
print(d['foo'])
```

output:

42

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

Ans: The most significant distinction between a dictionary and the list are as follows:

1.The dictionary is represented as { } where as the lists are represented as [ ].

2.The data is stored in the dictionary as key value pair where as the data is stored in list based on indexes.

3.In dictionaries we can retrieve the data based on indexes where as in dictionary we have to give the key to retrieve the data.

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

Ans: If we try to access spam['foo'] from spam={'bar':100} we get key error.

```
spam= {'bar': 100}  
print(spam['foo'])
```

Output:

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 between the two expression both the expressions returns the value “True” if ‘cat’ is present in the dictionary otherwise it will return False.

```
spam= {'bar': 100,'cat':20}  
print('cat' in spam)
```

output:

True

```
spam= {'bar': 100,'cat':20}  
print('cat' in spam.keys())
```

output:

True

6. If a dictionary is stored in spam, what is the difference between the expressions 'cat' in spam and 'cat' in spam.values()?

Ans: The difference is spam.values() returns True if the ‘cat’ is present in values of the given dictionary otherwise it will return False.

```
spam= {'bar': 100,'animal':'cat'}  
print('cat' in spam.values())
```

output:

True

```
spam= {'bar': 100,'cat':20}  
print('cat' in spam)
```

output:

True

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:

Using print method:

```
dict1 = [  
    {'Name': 'Vandana', 'school': 'johns high school', 'marks': {'english': 99,  
    'maths': 80, 'science': 96}},  
    {'Name': 'Jose', 'school': 'stmarys school', 'marks': {'english': 90,  
    'maths': 91, 'science': 86}},  
]  
  
print('Printing using print() function\n', dict1)
```

output:

Printing using print() function

```
[{'Name': 'Vandana', 'school': 'johns high school', 'marks': {'english': 99, 'maths':  
80, 'science': 96}}, {'Name': 'Jose', 'school': 'stmarys school', 'marks': {'english': 90,  
'maths': 91, 'science': 86}}]
```

Using pprint method:

```
import pprint  
print('using pprint method')  
pprint.pprint(dict1)
```

output:

using pprint method

```
[{'Name': 'Vandana',  
  
  'marks': {'english': 99, 'maths': 80, 'science': 96},  
  
  'school': 'johns high school'},
```

```
{'Name': 'Jose',  
  'marks': {'english': 90, 'maths': 91, 'science': 86},  
  'school': 'stmarys school']}
```

Using json method:

```
import json  
dump = json.dumps(dict1, indent=4)  
print('Printing using dumps() method')  
print(dump)
```

output:

Printing using dumps() method

```
[  
  {  
    "Name": "Vandana",  
    "school": "johns high school",  
    "marks": {  
      "english": 99,  
      "maths": 80,  
      "science": 96  
    }  
  },  
  {  
    "Name": "Jose",  
    "school": "stmarys school",  
    "marks": {
```

"english": 90,

"maths": 91,

"science": 86

}

}

]