## Dictionary

```python
    #Dictionary - dictionary is a collection of key-value pairs.
    #key - unique value
    #value - can be duplicate value
    #dictionary is mutable - we can change the value of the key
    d = {} # by default it is a dictionary
    d
[51]  ✓  0.0s                                                      Python
...   {}
```

```python
    type(d)
[52]  ✓  0.0s                                                      Python
...   dict
```

```python
    d1 = {1: 'one', 2: 'two', 3: 'three'}
    d1
[53]  ✓  0.0s                                                      Python
...   {1: 'one', 2: 'two', 3: 'three'}
```

```python
    d1.keys()
[54]  ✓  0.0s                                                      Python
...   dict_keys([1, 2, 3])
```

```python
    d1.values()
[55]  ✓  0.0s                                                      Python
...   dict_values(['one', 'two', 'three'])
```

```python
    d1.items()
[56]  ✓  0.0s                                                      Python
...   dict_items([(1, 'one'), (2, 'two'), (3, 'three')])
```

```python
    d1
[121]  ✓  0.0s                                                     Python
...   {1: 'one', 2: 'two', 3: 'three'}
```

```python
    d2 = {'name': 'nit', 'age': 30, 'city': 'delhi'}
    d2
[123]  ✓  0.0s                                                     Python
...   {'name': 'nit', 'age': 30, 'city': 'delhi'}
```

```python
    demo = dict.fromkeys(d1, d2)
    print(demo)
[127]  ✓  0.0s                                                     Python
...   {1: {'name': 'nit', 'age': 30, 'city': 'delhi'}, 2: {'name': 'nit', 'a
```

```python
d2.pop('city')
```
[128] ✓ 0.0s  Python

... 'delhi'

```python
d2.popitem()
```
[129] ✓ 0.0s  Python

... ('age', 30)

```python
d2
```
[130] ✓ 0.0s  Python

... {'name': 'nit'}

```python
d2.setdefault('country', 'india')
```
[131] ✓ 0.0s  Python

... 'india'

```python
d2
```
[132] ✓ 0.0s  Python

... {'name': 'nit', 'country': 'india'}

```python
d2.update({'state': 'delhi'})
d2
```
[134] ✓ 0.0s  Python

... {'name': 'nit', 'country': 'india', 'state': 'delhi'}

```python
print(d1[1])
print(d1[2])
print(d1[3])
```
[63] ✓ 0.0s  Python

... one
two
three

```python
print(d1.get(1))
print(d1.get(2))
print(d1.get(3))
```
[62] ✓ 0.0s  Python

... one
two
three
```

```python
    for i in d1:
    |    print(i);
```
[64]  ✓  0.0s                                                        Python

```
1
2
3
```

```python
    for i in enumerate(d1):
    |    print(i)
```
[66]  ✓  0.0s                                                        Python

```
(0, 1)
(1, 2)
(2, 3)
```

```python
    #string and raw string
    print('c:\nit')
```
[69]  ✓  0.0s                                                        Python

```
c:
it
```

```python
    print(r'c:\nit')
```
[70]  ✓  0.0s                                                        Python

c:\nit

```python
    d = {'Name': 'Ram', 'Age': '19', 'Country': 'India'}
    print(list(d.items())[1][0])
    print(list(d.items())[1][1])
```
[135]  ✓  0.0s                                                       Python

```
Age
19
```