

In []:

```
1 # 1
2
3 d={}
```

In []:

```
1 # 2
2
3 d={"foo": 42}
4
5
6 value for key foo in d is 42
7 length of dictionary is 1
```

In []:

```
1 # 3
2
3 In list we store the elements with values directly
4 but in dictionary elements are of the key:value pair format
5
6
7 dictionary can large amount of data than the list
```

In []:

```
1 # 4
2
3 if u try to assign a value to it a new key value pair is added to dictionary
4 else
5 it will give key error
```

In []:

```
1 # 5
2 if "cat" is a key in spam
3 "cat" in spam :it will return true else return false
4 "cat".spam.keys() will check the "cat" is present in list of keys of spam
5 this will return true else false
```

In []:

```
1 # 6
2
3 if "cat" is a key in spam
4 "cat" in spam :it will return true
5 else return false
6 if "cat" is any key's value in spam
7 "cat" in spam :it will return false
8 "cat".spam.values() will check the "cat" is present in list of values of spam
9 this will return true else false
10
```

In []:

```
1 # 7
2
3 spam["color"]="black"
```

In [2]:

```
1 # 8
2
3 using dict module and dict.values( ) function
4
5 d={"foo": 42, 'bar': 100, 'ba': 20}
6 print(d.values())
```

dict_values([42, 100, 20])