

Python Dictionary

- # A dictionary is a collection of key:value pairs
- # Keys are immutable objects like string, tuple and frozenset.
- # Dictionary is ordered - i.e items of a dictionary always print in same order
- # Dictionary is changeable - i.e we can add, remove and change items after its creation
- # No duplicate key allowed.
- # Dictionary item values can be of any type - i.e they support mixed data type

Python Dictionary Methods

Method	Description
<u>clear()</u>	Removes all the elements from the dictionary
<u>copy()</u>	Returns a copy of the dictionary
<u>fromkeys()</u>	Returns a dictionary with the specified keys and value
<u>get()</u>	Returns the value of the specified key
<u>items()</u>	Returns a list containing a tuple for each key value pair
<u>keys()</u>	Returns a list containing the dictionary's keys
<u>pop()</u>	Removes the element with the specified key
<u>popitem()</u>	Removes the last inserted key-value pair
<u>setdefault()</u>	Returns the value of the specified key. If the key does not exist: insert the key, with the specified value
<u>update()</u>	Updates the dictionary with the specified key-value pairs
<u>values()</u>	Returns a list of all the values in the dictionary

Problem 1

How would you add a new key to this dict?

```
d = {  
    "name": "Johanth",  
    "language": "Python",  
    "state": "Telangana",  
}
```

Key name is: age

Solution 1

- 1) Using assignment operator
- 2) Using update() method

Problem

You find this line of code in a .py file:

```
l[5] = 'Bala'
```

What can you say about l?

- a) It is a dictionary
- b) It is a list
- c) It could be both
- d) Cannot say either with surety

Solution

```
l = ['alpha', 'beta', 'gamma']  
l[0] = "Bala"  
l[1] = "Lijiya"  
l[2] = "Ashish"
```

```
d = {}  
d[0] = "Bala"  
d[1] = "Lijiya"  
d[2] = "Ashish"
```

```
print(l)  
print(type(l))  
print(d)  
print(type(d))
```

```
['Bala', 'Lijiya', 'Ashish']  
<class 'list'>  
{0: 'Bala', 1: 'Lijiya', 2: 'Ashish'}  
<class 'dict'>
```