

1. What is dictionary? Explain with an example.

Dictionaries are another example of a data structure. A dictionary is used to map or associate things you want to store the keys you need to get them. A dictionary in Python is just like a dictionary in the real world. Python Dictionary are defined into two elements keys and values.

Keys will be a single element

Values can be a list or list within a list, numbers, etc.

Syntax for Python Dictionary:-

```
Dict = { 'Tim': 18, 'xyz': 24 }
```

Properties of Dictionary Keys:

There are two important points while using dictionary keys

More than one entry per key is not allowed (no duplicate key is allowed)

The values in the dictionary can be of any type while the keys must be immutable like numbers, tuples or strings.

Dictionary keys are case sensitive- Same key name but with the different case are treated as different keys in Python dictionaries.

```
dict1 = {'tim': 18, 'charlie': 12, 'tiffany': 22, 'robert': 25}
```

```
print (dict1['tiffany'])
```

Dictionaries in a programming language is a type of data-structure used to store information connected in some way. Python Dictionary are defined into two elements keys and values. Dictionaries do not store their information in any particular order, so you may not get your information back in the same order you entered it.

1) Keys will be a single element values can be a list or list within a list, numbers, etc.

2) More than one entry per key is not allowed (no duplicate key is allowed)

3) The values in the dictionary can be of any type while the keys must be immutable like numbers, tuples or strings.

4) Dictionary keys are case sensitive- Same key name but with the different case are treated as different keys in Python dictionaries.