

5. Dictionary: Dictionary is a collection of key & value pairs

- The key value pair of dictionary should be enclosed in {}
- The key & value of dictionary should be separated by :
- The key value pairs of dictionary should be separated by ,
- Syntax:

var = {k<sub>1</sub>:v<sub>1</sub>, k<sub>2</sub>:v<sub>2</sub>, ..., k<sub>n</sub>:v<sub>n</sub>}

d = {1:'abc', 'a':[1, 2], 5.5:100}

- Dictionary is an ordered datatype

Example: d = {1:[5, 8, 9], 'a':'app', 6.9:9+67}

print(d)

d = {1:[5, 8, 9], 'a':'app', 6.9:9+67}

- We can't fetch keys from the dictionary but we can get the values with the help of respective keys.
- The syntax to get the values from dictionary is

var[key]

Example: d = {1:[5, 8, 9], 'a':'app', 6.9:9+67}

→ d['a'] = 'app'

d[1] = [5, 8, 9]

d[6.9] = 9+67

- Keys are visible layer of the dictionary.
- Dictionary is a mutable datatype
- The syntax to add new key value pair to the dictionary

var[key] = value

Example: d = {5:66.7}

d['a'] = 'apple'

d = {5:66.7, 'a':'apple'}

- Inside the dictionary
  - Key should be immutable datatype
  - Value can be any datatype.

Example: d = {[1]: 3+9}

TypeError: Unhashable type: 'list'!

- Dictionary will not store any repeated or duplicate keys, if we are trying to store a repeated key then the old value of that key will be overridden with the new value

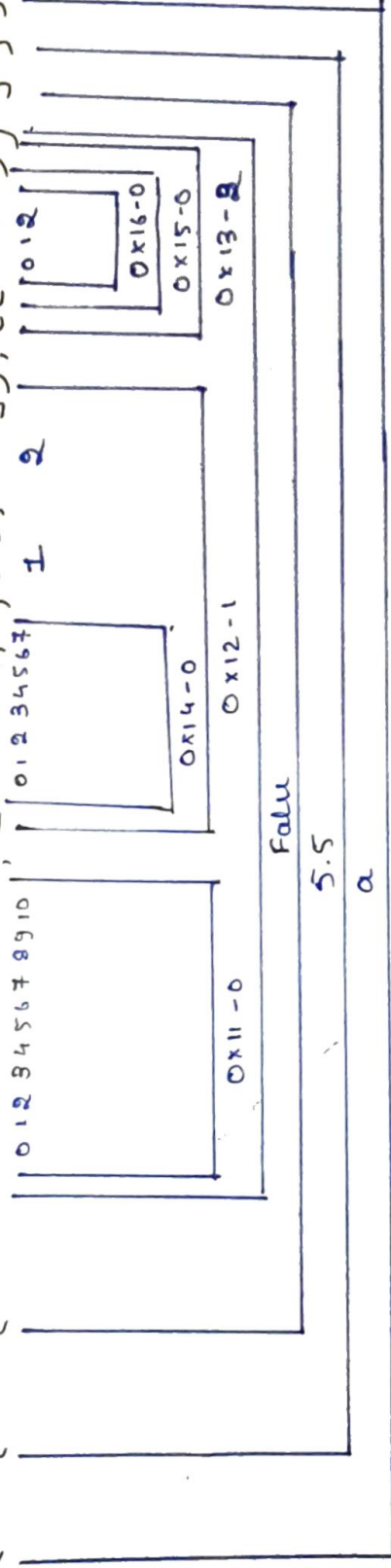
Example: d = {5:66.7, 'a':'apple'}

d['a'] = 89

d = {5:66.7, 'a':89}

- The default value for dictionary is {}

1) d = { 1 : { '0' : { 5.5 : { false : "wed-tue-sat", 5.9, 6+8j }, [ [ 'ink' ] ] } } }



- 1) 'd' - d[1]['0'][5.5][false][0][2]
- 2) 's' - d[1]['0'][5.5][false][0][8]
- 3) 'u' - d[1]['0'][5.5][false][0][5]
- 4) 'm' - d[1]['0'][5.5][false][1][0][2]
- 5) 'n' - d[1]['0'][5.5][false][1][0][5]
- 6) '6+8j' - d[1]['0'][5.5][false][1][2]
- 7) 'k' - d[1]['0'][5.5][false][2][0][2]