Agenda :

                                    pop ( )   Gate DA

  * Dictionary

                                    popitem ( )

  * Applications of list, tuple, sets & Dictionary

→ * Problem Solving — all concepts learnt till date

Dictionary :   pop ( )
                     popitem ( )   ✓

Dataset

feature_1	feature_2	feature_3	y
1			Cat
2			rat
4			fish
5			Cat
`at`			rat

result
output

`6`

12

12.0

$$l = dataset[`feature\_i']$$

Tuple will used if you don't want to change
the combination later.

$$CONSTANTS = (1.2, 5.8, `Cat')$$

$$CONSTANTS[0] = 1.2, \quad 5.8, \quad `at'$$

Location Co-ordinates

(latitude , longitude)

Sets :

With data   l = [cat , rat , cat , fish , cat . . . . . .]

set (l) ⟶ Unique elements

cat , rat , fish , tiger , lion

| feature_1 | feature_2 | feature_3 |

Frozen Sets :
data-preprocessing

9990   10000

cat , fish , tiger , lion ,
goat

| cat |
| fish |
| fix |
| lion |

} frozen-set

10 times Goat

Dictionary :

hyperparameter _ tuning

{ feature1 : 2 , feature_2 : 10 , feature_3 : 100 }

⟶ batch _size = [1 , 16]

learning rate = [0.1 , 0.2 , 1 , 10 , 100]

best _value = { batch_size' : 8 ,
              learning_rate' : 10 }

$$\underline{\text{Weights} \quad , \text{ biases}}$$

$$d = \Big\{ \text{`weight'}: [\underline{} \quad \Big\} \Big\}, y$$
$$\text{`bias'}: [$$

$$d = \Big\{ \boxed{\text{`Binit'}} : \Big\{ \text{`Course enrolled'}: \text{`Gate DA'},$$
$$\text{Marks\_scored}: 100,$$
$$\vdots$$
$$\Big\} ,$$

$$\parallel$$

$$\boxed{12} \!-\!\! \boxed{\text{`Venky'}} : \Big\{ \text{`Course\_enrolled'}:$$
$$\text{marks\_scored}:$$
$$\text{P.no}:$$
$$\Big\}$$

list	tuple	set	frozen set	Dictionary
[ ]	( )	set ( )	frozenset ( )	{ }
list( )	tuple ( )	~~{ }~~		dict ( )

incorrect

size 1
a = tuple(1,) , a = 1, , a = 1,2,3

list, tuple, set, frozen set, dict — takes non-homo
- geneous data

mutable data is not allowed

mutable data is not allowed as a Key.

duplicate entries are not allowed

duplicate Key's are not allowed.
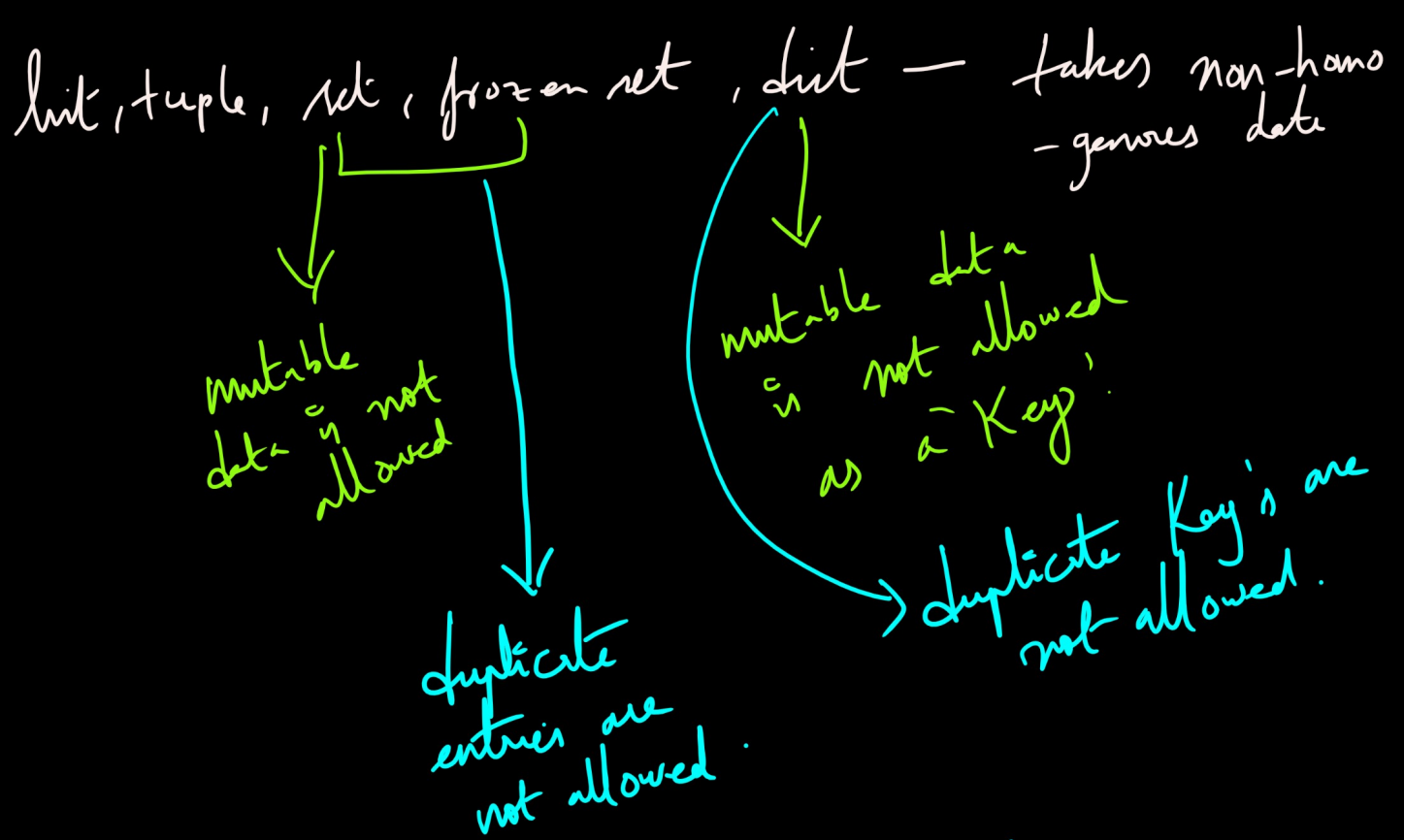
list, tuple → Ordered, Indexed by sequence.

Set, frozenset → Unordered, Unindexed.

Dictionary → Ordered, indexed by Keys
not by sequence.

after Python 3.7 & above

list, set, dict → Mutable

tuple, frozenset, strings, int → Immutable.