ITV301 (Python Based Data Visualization & Management

→ Python Revisited (classes / last semester)

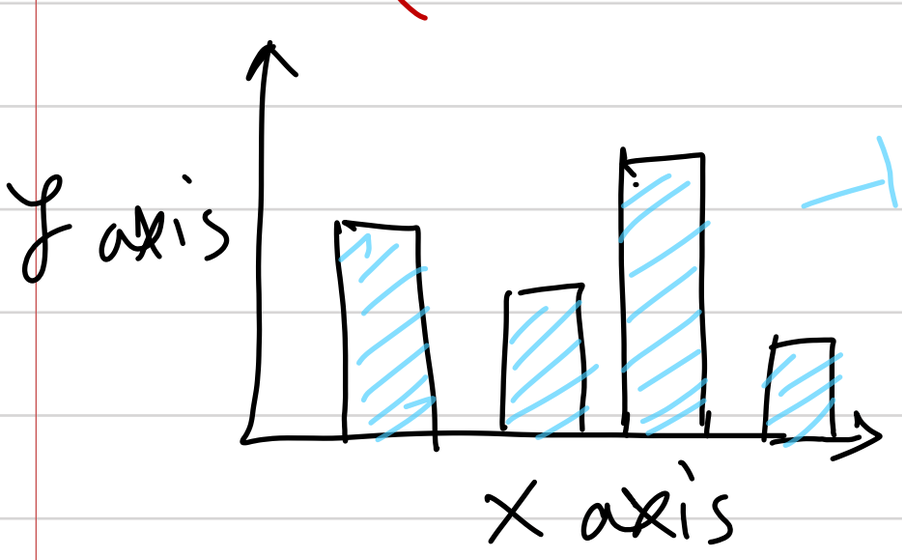
→ Data Management (SQL)

C - Create
R - Read
U - Update
D - Delete

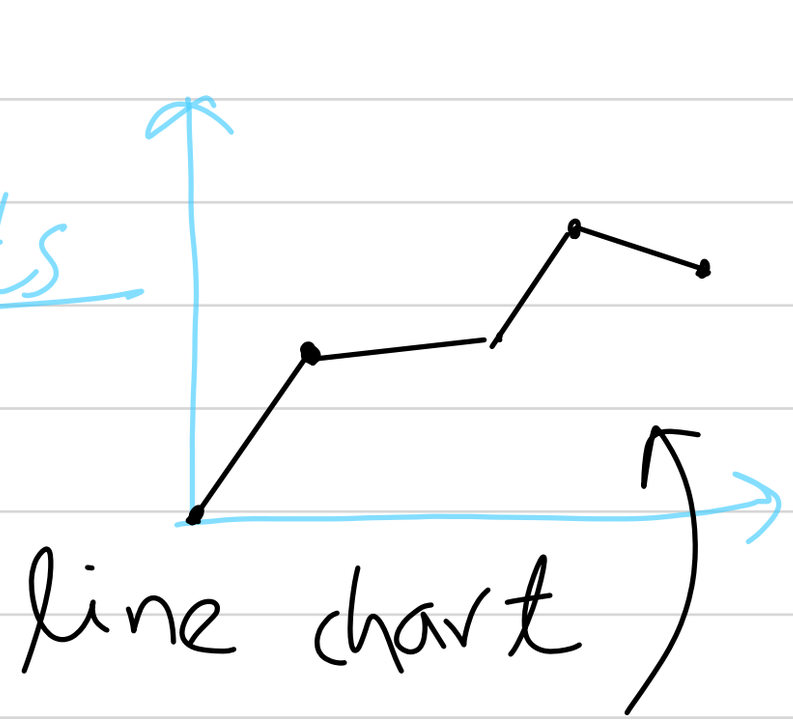
→ Data Visualization :-

(i) PyQt5
(ii) PyQtGraph
(iii) Plotly.

| Matplotlib
| Pyplot ←

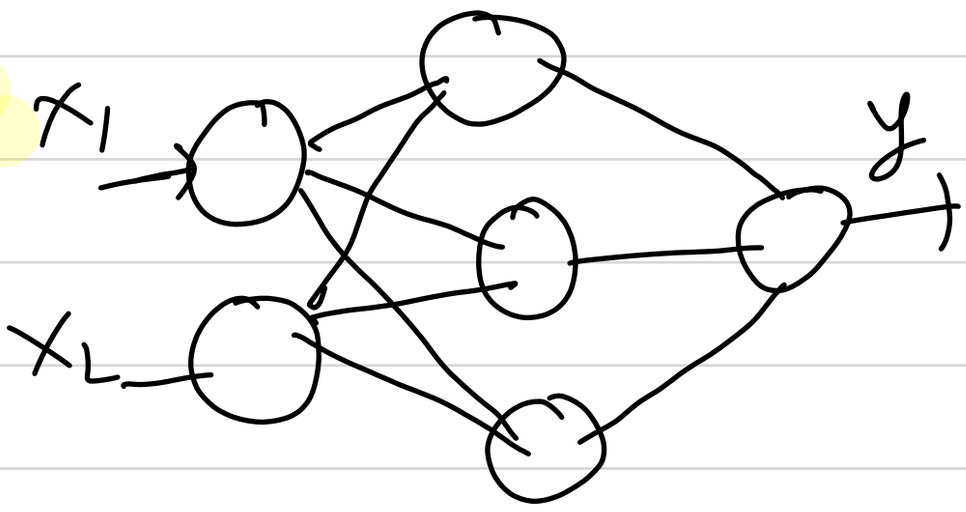


→ Bar Graphs / charts



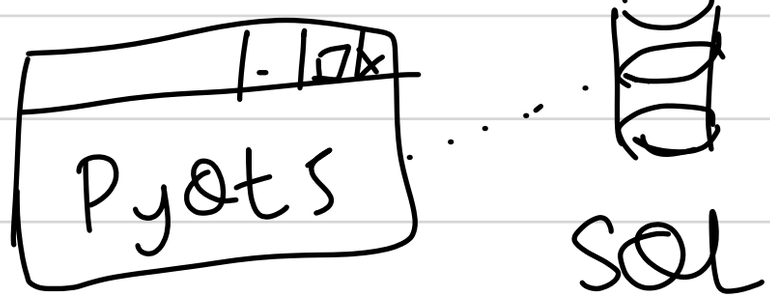
(4) Neural Networks :

Bio-Mimicking



(5) Application :

PyOts → Application



Jupyter - Notebook

↳ Anaconda Distribution

⇒ Basics of python :

Data Types : (i) Integer (0, 1, 2, 3)

(ii) float (1.2, 1.23, 1.45)

(1.0) (int)

(iii) list ([1, 2, 3]) } diff ?

(iv) tuple ((1, 2, 3)) }

(v) Complex (1 + 1i)

(vi) Dictionary ({'a' : 10})

(A) Mutable & Immutable.

(B) Iterables & Non-Iterables

Mutable Data Types : list is an example

a = [1, 2, 3] ⇒ a.append(10)

Dictionaries are mutable as well.

⇒ Immutable Data Types :-

Word = 'string' → tuples are immutable as well.

are immutable

(B) Iterables: 'Mridul'
0 1 2 3 4 5

10 → str(10)

W = '12345'

W_int = int(W)

'10' → 0, 1

W = 'a1234' ✗
Can not convert to an integer

10 → range(10)

(0, 1, 2, 3, 4, 5, 6, 7, 8, 9)

```
In [1]: for i in range(10):
            print(i)

0
1
2
3
4
5
6
7
8
9
```

for i in range(10)

0, 1, ... 9

>>> 0 in [0, 1, 2, 3]

True

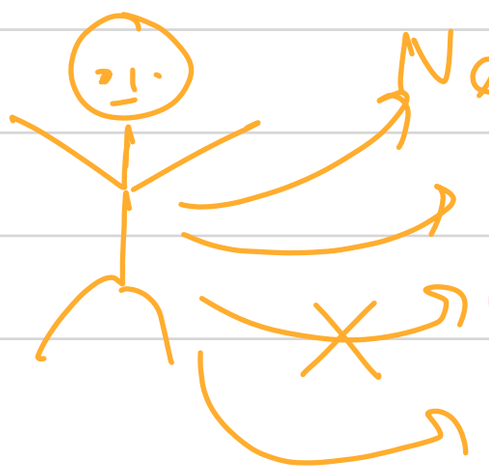
Non Iterables: Numbers / Complex as well

10, 20, 1+5i

Class :- >>> a = 10

type(a)

>>> <class 'int'>



(Kryptonian)

```
>>> a = 10
>>> b = 20
```

```
>>> a + b
```

Dunder Method

a.__add__(b)

a - b

```
>>> dir(a)
__add__
__truediv__
__sub__
   :
   :
   !
```

Special Methods which are predefined.