Excel Sheet

Marks	English	Maths	Telugu
0:	1	4	7
1:	2	5	8
2:	3	6	9

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

Lists [1,4,7], [2,5,8], [3,6,9]

Dictionaries English: [1,2,3], Maths: [4,5,6], Telugu: [7,8,9]

Array:- np.array( ) → Tuple / List

Series:- 1-d, Column in a Excel Sheet

pd.Series( ) → Tuple / List / Array.id / Dictionary

0:
1:
2:

Series
Eng. [1,2,3]
Maths [4,5,6]
Telugu [7,8,9]

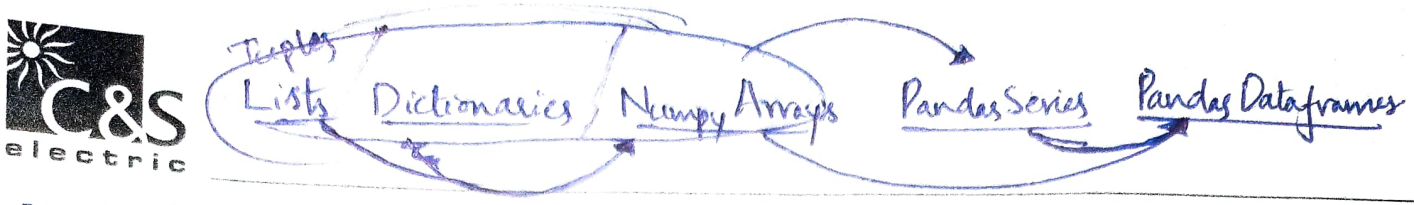
Dataframes:- Similar to ExcelSheet

	Eng	Maths	Telugu
0	1	4	7
1	2	5	8
2	3	6	9

pd.Dataframes( ) → Array / Dictionaries

In List we can keep Any DataType → L1 = ['Kavi', 24, 2000]

Array: (Same DataType) Ar1 = [24, 2000]



DataBase/Excel File

S.No	Name	DOB	Age	Marks: English	Maths	Science	Total
1.	Kasi	13/02/1993	29	60	70	55	185 (60+70+55)
2	Satya	24/07/1991	30	40	90	45	175 (40+90+45)
3.	Murthy	25/09/1992	29	20	40	30	90 (20+40+30)

List :- Any DataTypes

List 1 : [1, Kasi, 13/02/1993, 29, 60, 70, 55]

List 2 : [2, Satya, 24/07/1991, 30, 40, 90, 45]

List 3 : [3, Murthy, 25/09/1992, 29, 20, 40, 30]

Dictionaries : Key : Value Pair

Dict 1 : {S.No : [1,2,3], Name: [Kasi, Satya, Murthy], D.O.B: [, ,], Age: [29,30,29], English: [60,40,20], Maths : [70,90,40], Science: [55,45,30]}.

Pd Series

S.No [1,2,3]
Name : [, ,]
D.O.B :
:
:

~~Arrays~~

English	Maths	Science
60	70	55
40	90	45
20	40	30

~~Same DataType~~

Array :- Same DataType Multidimensional

[[60, 70, 55], [40, 90, 45], [20, 40, 30]]

~~Eg~~ Arr1 = [60, 70, 55]
Arr2 = [40, 90, 45]
Arr3 = [20, 40, 30]

Series :- Not possible for 2-d Array.

Dataframe

	English	Maths	Science
R1	60	70	55
R2	40	90	45
R3	20	40	30

Same as Database Structure