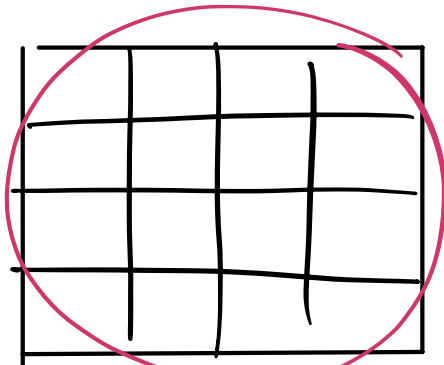data type
(homogeneous)

← NUMPY

roll-no. ✗
name ✗
age ✗
date of birth. ✗

different data types
(heterogeneous)
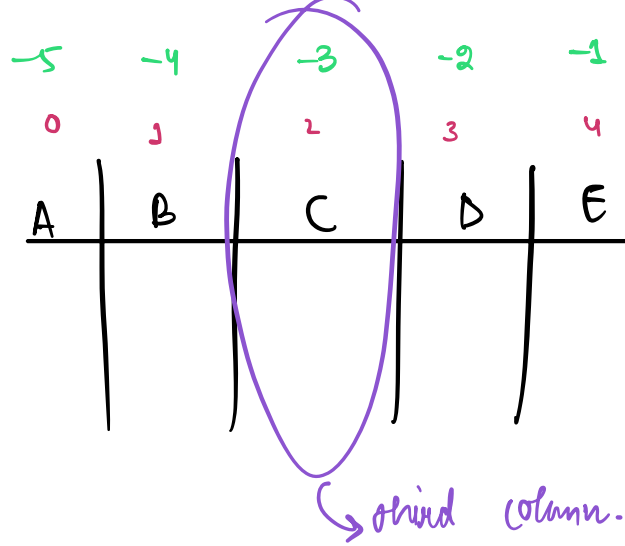
← PANDAS.

roll-no.
name
age
date of birth.

series / column / 1D matrix.

Roll Number	Name	Age	DOB
1	A	12	1/9/2010
2	b	12	2/10/2010
3	C	13	4/11/2011
4	D	14	5/3/2010

dataframe / table / 2D matrix

	-5	-4	-3	-2	-1
	0	1	2	3	4
	A	B	C	D	E

↳ third column.

		nation	year	population	life_exp	gdp_cap	
one	10	**0**	Afghanistan	1952	8425333	28.801	779.445314	0
two	11	**1**	Afghanistan	1957	9240934	30.332	820.853030	1
three	12	**2**	Afghanistan	1962	10267083	31.997	853.100710	2
four	13	**3**	Afghanistan	1967	11537966	34.020	836.197138	3
five	14	**4**	Afghanistan	1972	13079460	36.088	739.981106	4
.	.	**...**	...	...	...	...	...	⋮
(	1709	**1699**	Zimbabwe	1987	9216418	62.351	706.157306	1699
(	1710	**1700**	Zimbabwe	1992	10704340	60.377	693.420786	1700
(	1711	**1701**	Zimbabwe	1997	11404948	46.809	792.449960	1701
.	1712	**1702**	Zimbabwe	2002	11926563	39.989	672.038623	1702
:	1713	**1703**	Zimbabwe	2007	12311143	43.487	469.709298	1703

1704 rows × 5 columns

→ explicit indexes (labels)

implicit indexes (python index)