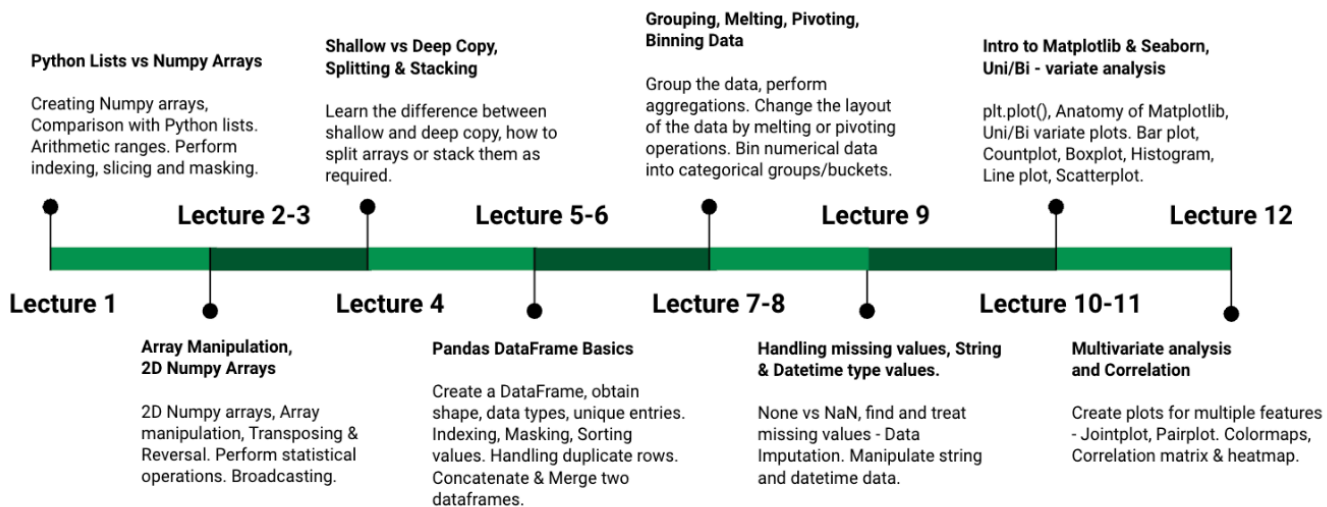


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DAV → Data analysis and
Visualization

9 Numpy , Pandas and Seaborn
matplotlib

DAV Part 1



DAV Part 2
Probability and Statistics

DAV Part 3

Hypothesis testing

Agenda

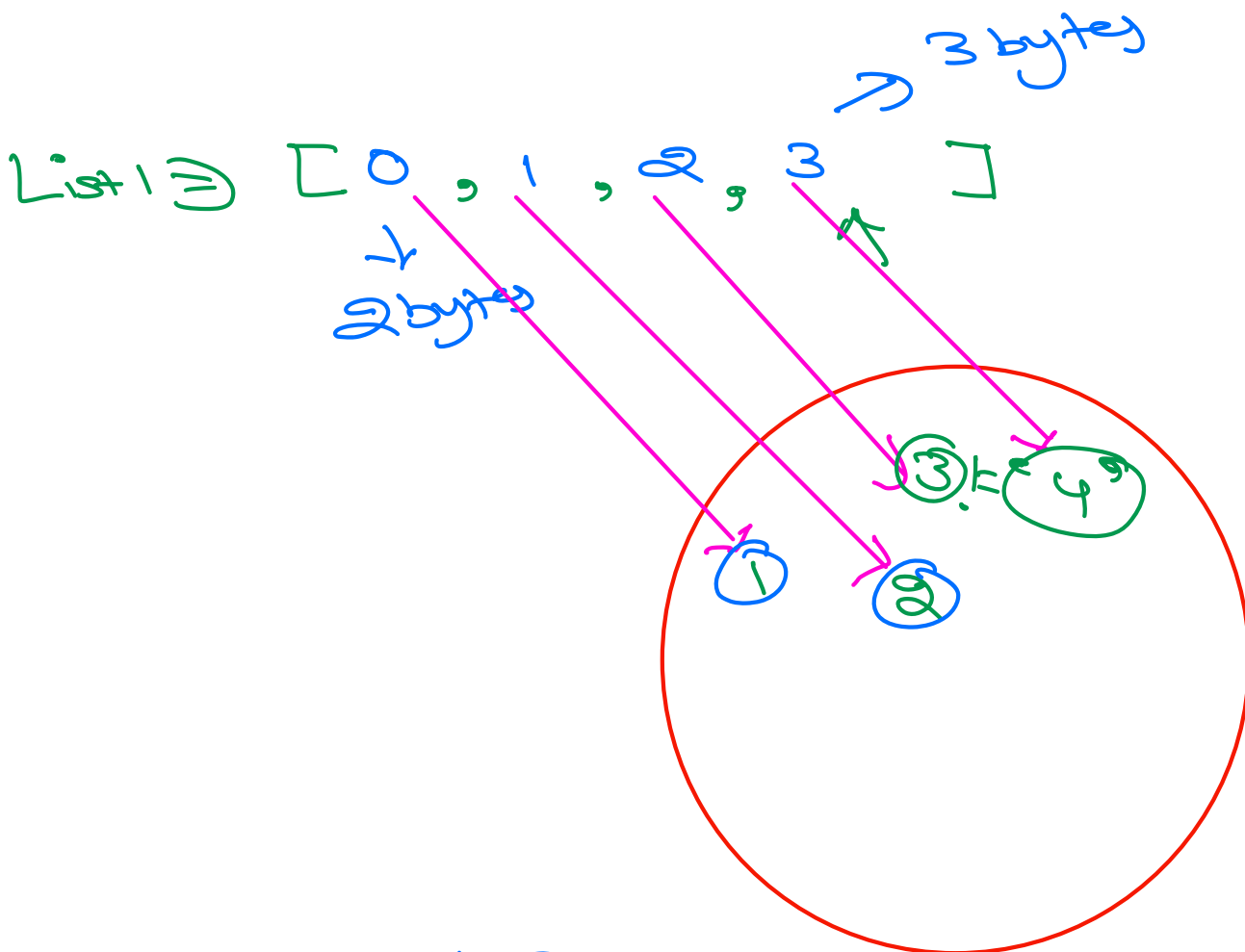
- ① What and Why : Numpy
- ② Arrays : Dims and Shape
- ③ Type Conversions
- ④ Indexing and Slicing
- ⑤ NPS Use - Case

List vs Array

Array	List
Homogenous	Heterogenous
Static	Dynamic

Ex : $[1, 2, 3, '4']$
 └────────┘ ↑
 n4m3 str list

Array faster or list?



2b 2b 2b 2b
[1, 2, 3, 4]
① Same datatype

② Contiguous block of memory

* Numpy Array

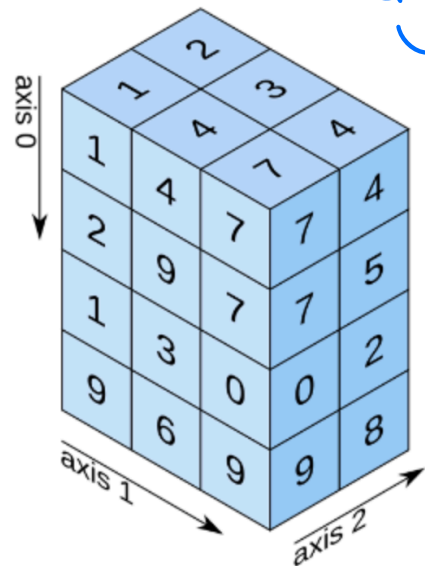
① C is used for implementing

② Python wrapper ↗

③ Manipulate, create and process Arrays

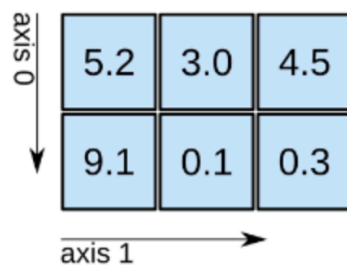
All the concepts of List such as slicing indexing and methods (sum, etc) are same in numpy as well

3D Array



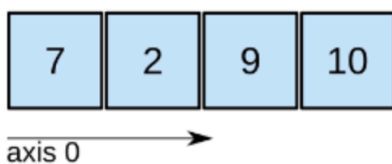
shape: (4, 3, 2)

2D array



shape: (2, 3)

1D array

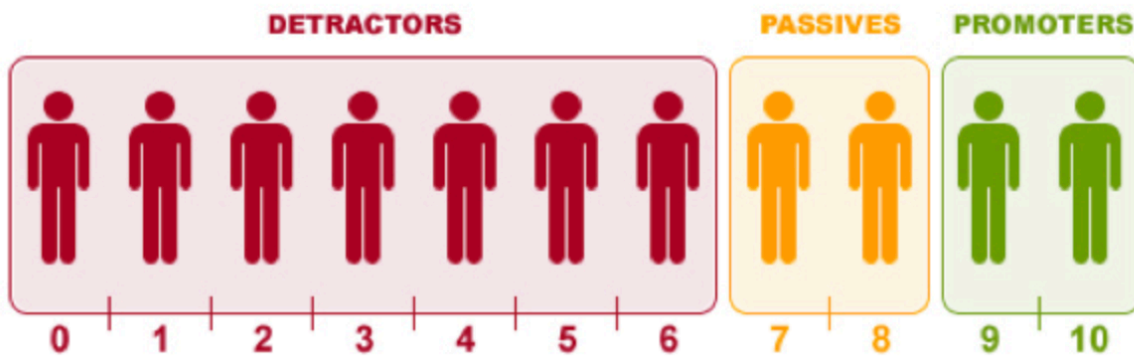


shape: (4,)

542 Arrays : 95%

NPS

Net Promoter Score



Net Promoter Score

=

% Promoters

-

% Detractors

Calculate: NPS

Detractors: Respondents with a score of 0-6

Passive: Respondents with a score of 7-8

Promoters: Respondents with a score of 9-10.