

① Doubts X

② Notes X

* Developer code

Thumb

* DS ↑

Thumbs down

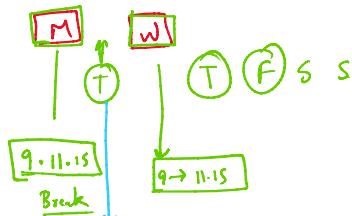
Th

① Never miss a live session.

* Live 10x Recorded



②



9-11-15
* * * handwritten notes * * → Interview - 40min
* Assignment - Doubts

WhatsApp

guidance

Agenda

1. Introduction to the Dataset & Business Context
2. Introduction to Data Analysis & Visualization (DAV)
3. Python Lists vs NumPy Arrays ✓
 - * Why Use NumPy Arrays? ✓
4. Dimensions & Shape ✓
 - * Understanding Dimensions & Shape
 - * np.arange() X
5. Type Conversion in NumPy Arrays
6. Indexing & Slicing

4. Dimensions & Shape
 * Understanding Dimensions & Shape 4
~~np.arange()~~ X
5. Type Conversion in NumPy Arrays
 6. Indexing & Slicing
 * Fancy Indexing (Masking) X
7. Working with 2D Arrays (Matrices)
 * Working with 2D Arrays ✓
 * Converting to Higher Dimensions X
8. Aggregate Functions
 * Row-wise and Column-wise Operations
 * Axis Operations
9. Logical Operations
 * Logical Operations

* → Python - X Recording

✓ C₁ ♀ → SL / Month Married Male MUM
20 L

✓ C₂ ♀ → SL / year Married Male Chennai

C₁ → Vijay Malya.

10 sec C₁ history data } → Response
C₂

history / Pattern → ✓
X



Machine Learning → spam
Non spam

→ Some

| | Exps | Sal |
|---|------|-----|
| 1 | 1 | 10K |
| 2 | 2 | 20 |
| 3 | 3 | 30 |
| 4 | 4 | 40 |
| 5 | 5 | 50K |
| 6 | ? | 60K |

(17)

Machine Learning

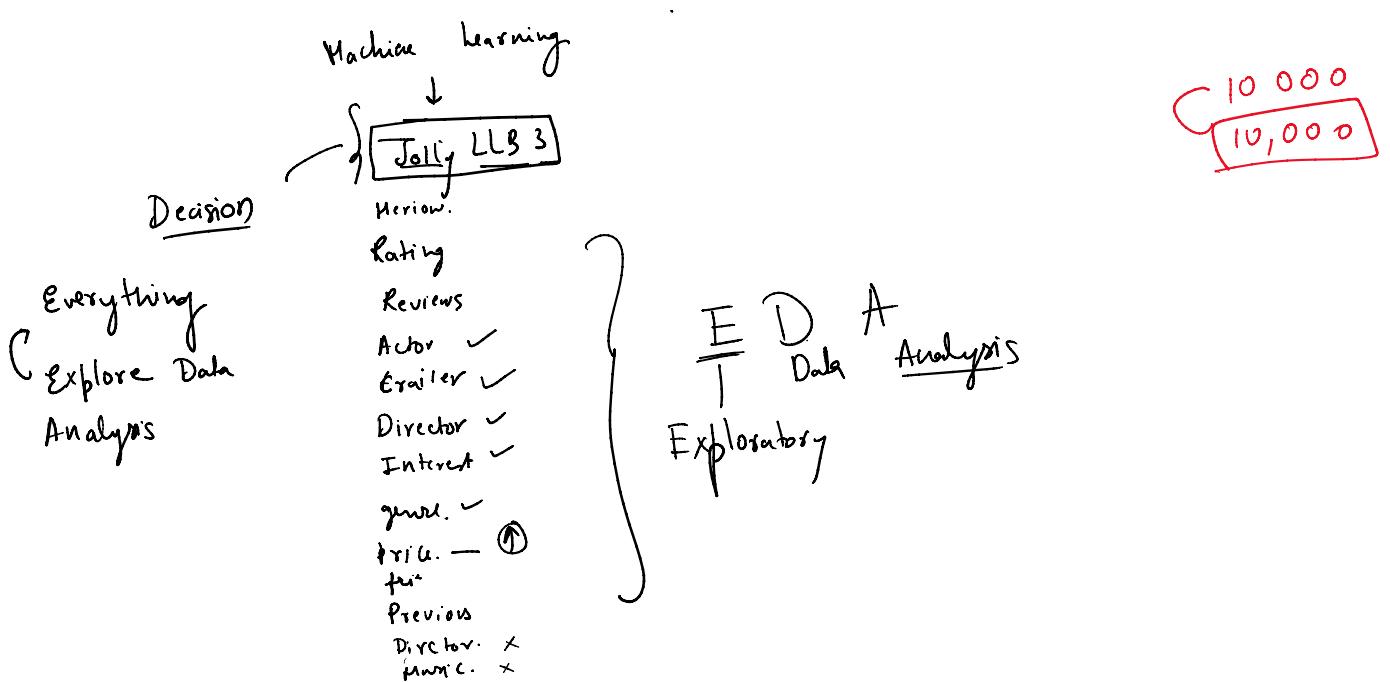
$$\text{Exp} \times 10K = \text{Salary}$$

 4 × 10K = 40K
 6 × 10K = 60K

↑
 SP ↑

- in 000

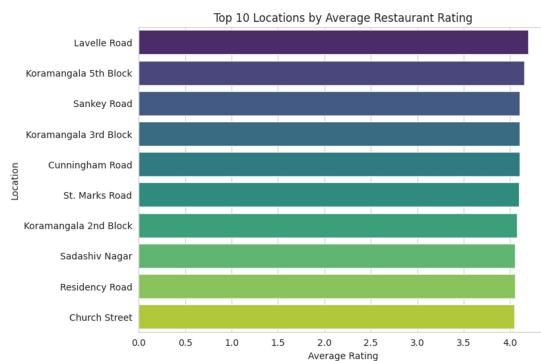
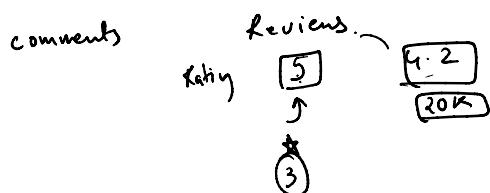
sal[↑]

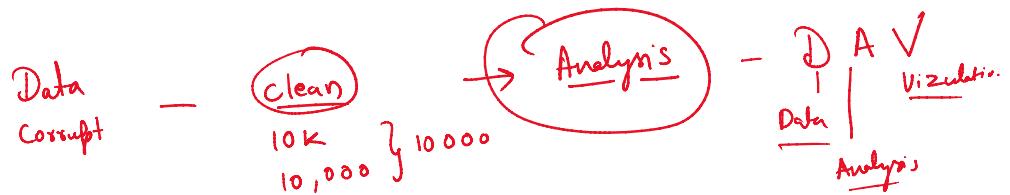
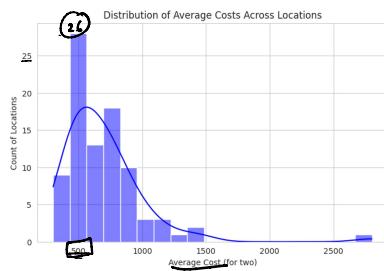


Zomato } Analysis

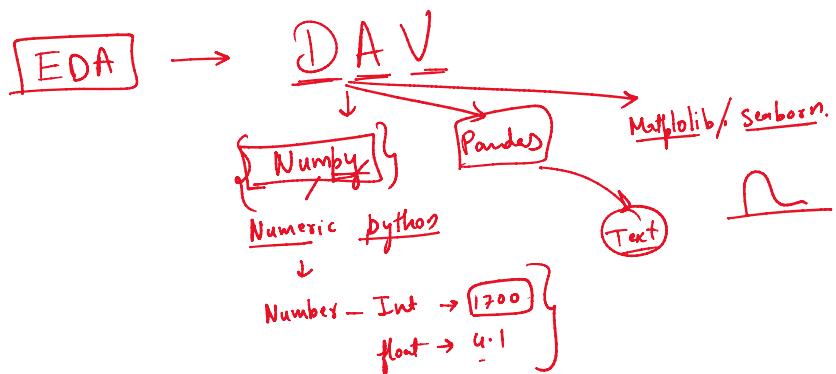
only Veg

No Veg

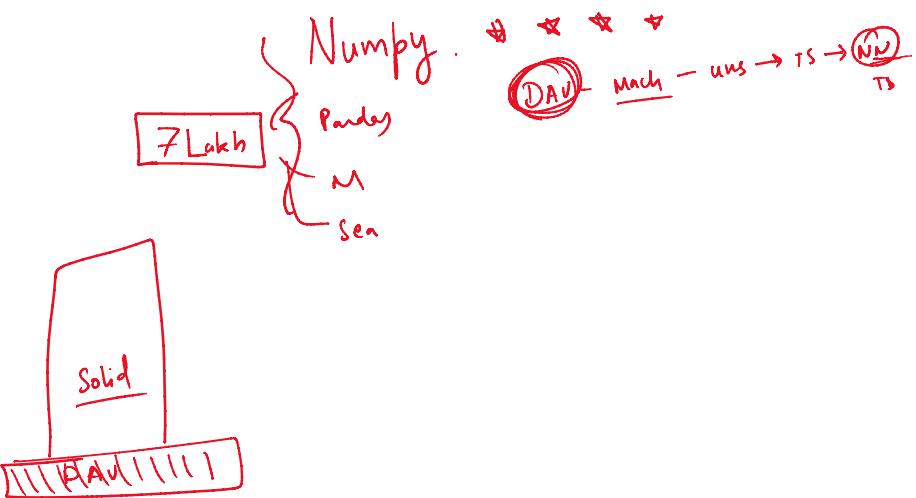




Automated - Machine Learn } → EDA

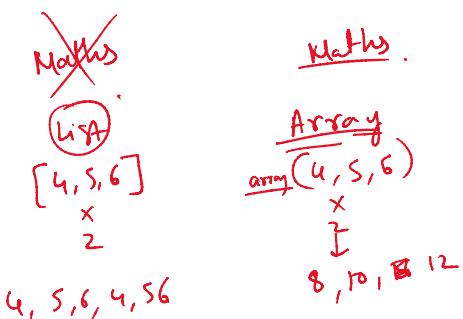
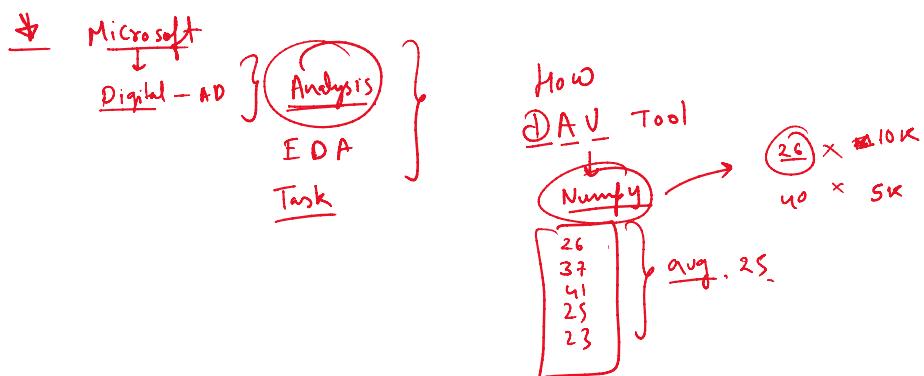
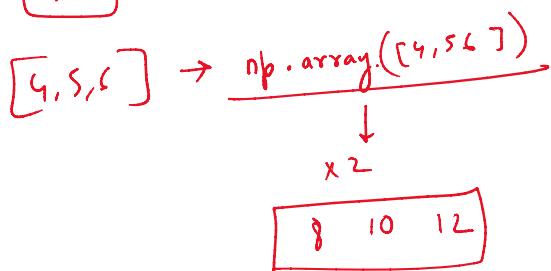
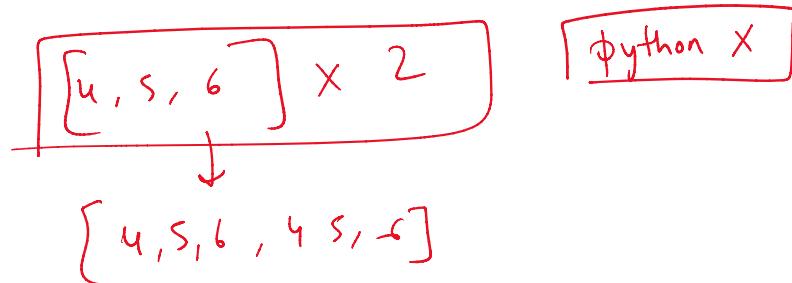


• Slow : }
good ↗ }





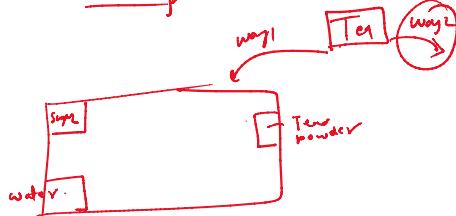
Grajodkar - Graju } pet.
Raju.



Colab
 { code → session }

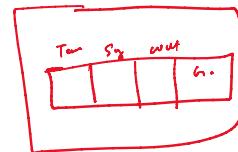
Numpy

- Story
- Industry
- Working



List

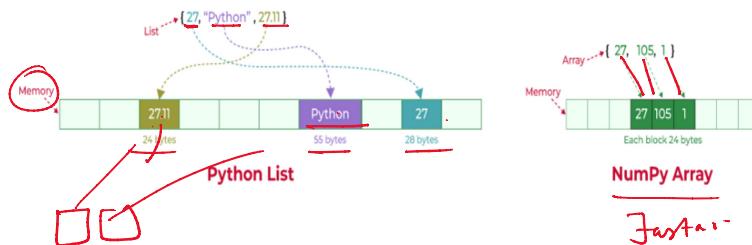
[4, 5, 6]



NumPy

[4 | 5 | 6]

contiguous allocation



one data type at a Time

* ["str" > float > int > bool] } one data type } Faster homogenous same type

[?]

→ **Votes**
 array([775, 787, 918, 88, 166, 286, 2556, 324, 504, 402])
 [23 46 81 67]
 [const row]

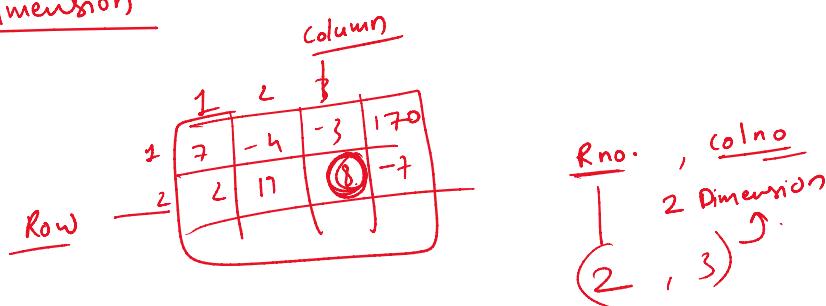
→ → array([775, 787, 918, 88, 166, 286, 2556, 324, 504, 402])
 [35 46 84 67]
 [copy
 so]

votes []

array - 1 | 1 | 1
 - 1 2 3 nparray → [7
 - 4 5 6
 - 7 8 1]

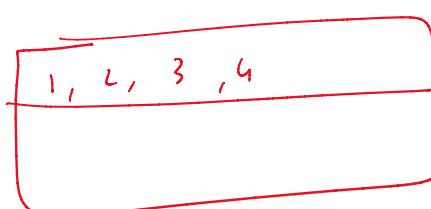
R, C [[775 , 354 , 678]
 [47 , 32 , 32]
 [1700 , 1400 , 600]]

2. Dimension



1, 10 } 2D
 R, C }

[1, 2, 3, 4,]



$$(2+3-4) \times 7 \\ (= 10)$$

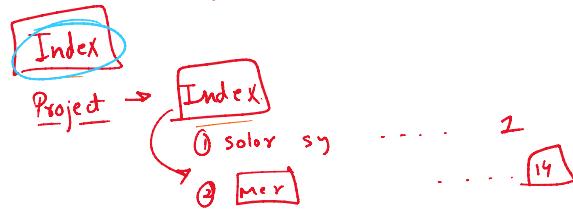
(10,)

1 2 3
4 5 6 X
7 8 0

(tuple)

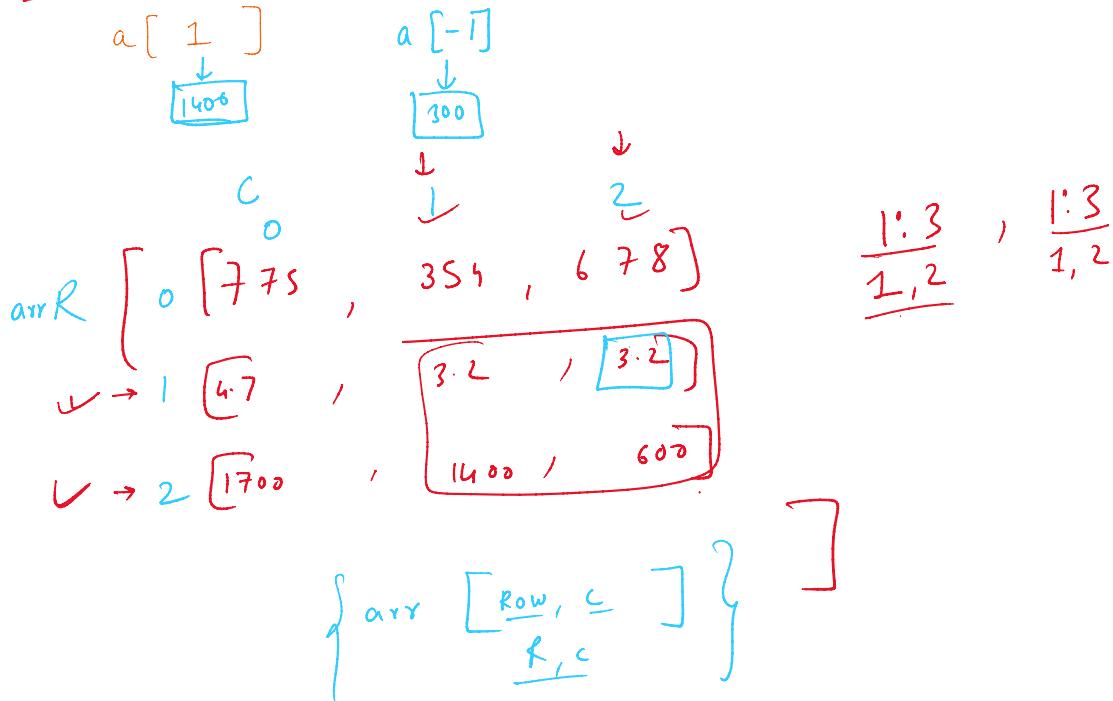
1 2 3
4 5 6
7 8 ~~NaN~~

Indexing and Slicing



array. a = $\begin{bmatrix} -5 & -4 & -3 & -2 & -1 \\ 1700 & 1400 & 600 & 400 & 300 \\ 0 & 1 & 2 & 3 & 4 \end{bmatrix}$

2nd



arr [R , C]
1 , 2

Solving

8clic

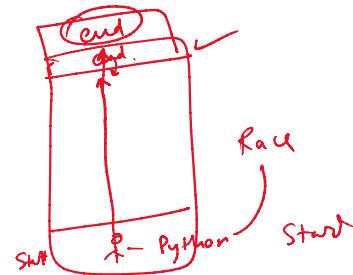
10, k
↓ slice.

$$[1, 2, 3]$$

$$arr = \left[\begin{smallmatrix} 1 & 2 \\ 3 & 4 \end{smallmatrix}, \begin{smallmatrix} 1 & 2 \\ 3 & 4 \end{smallmatrix}, \begin{smallmatrix} 1 & 2 \\ 3 & 4 \end{smallmatrix}, \begin{smallmatrix} 1 & 2 \\ 3 & 4 \end{smallmatrix} \right]$$

arr [start : ~~end.~~]
0 2

arr [start : end+1]
0 3
[0, 1, 2]

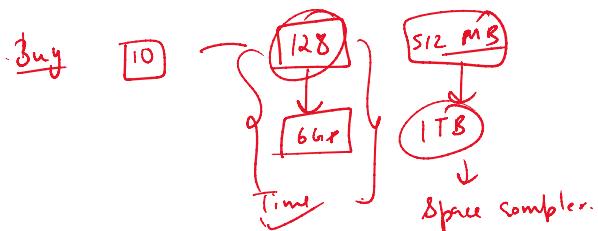
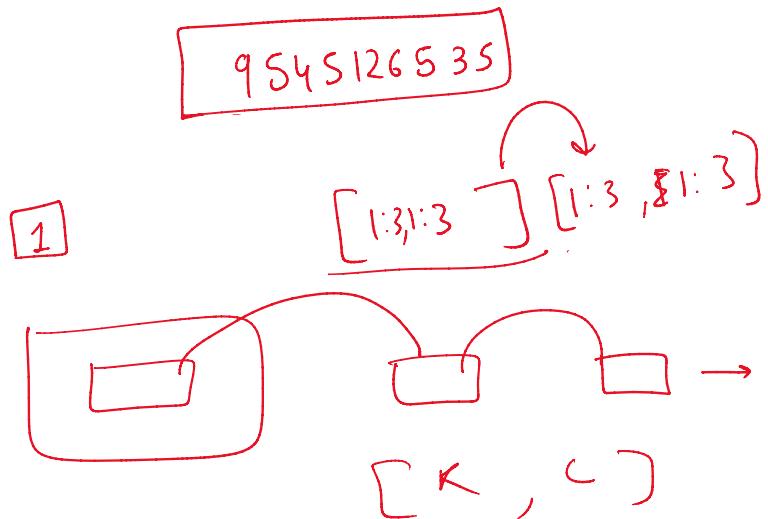


$$\begin{array}{c} \boxed{R} \\ 0,1 \\ 0,2 \end{array} , \quad \begin{array}{c}) \\ 1 \\ 1:\cancel{x} \end{array}$$

$$\begin{array}{c} \text{0: } \boxed{\times}, 1 \\ \text{0: } 2 \\ \text{1: } \cancel{3} \end{array} \quad \begin{array}{c} R, \\ (1, 2) \\ 1: 3 \end{array} \quad \begin{array}{c} C \\ (1, 4) \end{array}$$

$$\begin{array}{r} 60 - 70 = \\ \cancel{\quad\quad\quad} \end{array}$$

extra {Case study} \Rightarrow P.S.P ↑
 Mandatory



could you explain me what data scientist do,
 machine learning engineer do, AI engineer do, Gen
 AI engineer do?
From: https://www.semanticscience.org/resource/What_differences_between_data_scientist_and_analyst_and_ml/

