flow to perform EDA process

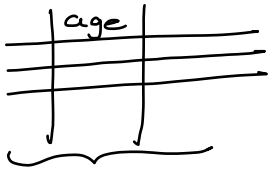
Why we perform EDA ? → Solve a business problem

Clear ✓ Business understanding : Correlate the insights from the data with your business understanding

Credit card : Data

↓

{ ← [age ≥ 18]

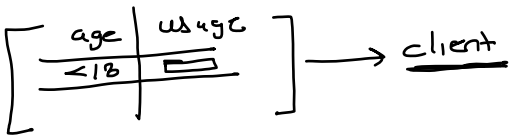


20,000

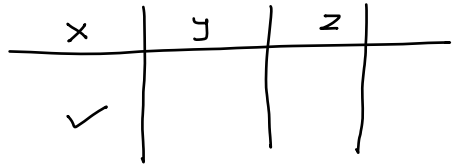
↓

[age < 18] ←

↓



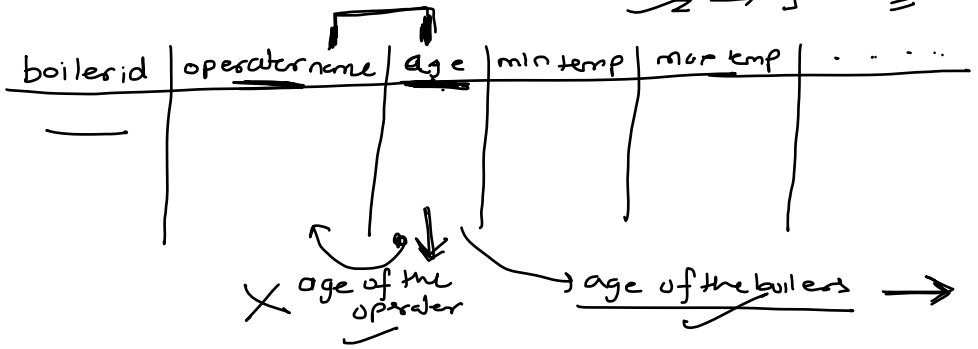
ii) Data understanding :



+ Data dictionary

x →
y →
z →
] very Imp

oil & gas



- Data cleaning → Check for duplicated rows
  - → Data type correction
  - → category check (check the list of unique categories)

Complete duplicated row : keep one drop other

Duplicates in a certain coloumn → Investigate → There will always be a reason behind it → according take next step

c_1	c_2	c_3	c_4	c_5
a_1	b_1	c_1	d_1	e_1
a_1	b_1	c_1	d_1	e_1

→ duplicated rows

Ecomm

city
- New Delhi
- Delhi
- Deli
- South Delhi
- NCR

→ (New Delhi)

Python → Pandas

- → Integer → int
- → decimal → float
- → String / text / alphanumeric → object
- → Datetime → Datetime

c.id o.id p.id v.id

c_1	c_2	c_3	c_4
a_1	b_1	c_1	d_1
a_1	b_2	c_2	d_2

→ Here the data is duplicated because there are two orders placed by one customer

customer count	order date
1.0	01/01/2011
2.0	01/02/2011
3.0	
7.0	
9.0	

→ object → Pandas Datetime format

int

→ Since this is count (wrong data type)

$\frac{50+29+28+21}{4}$ $\frac{29+25+28+21}{4}$ =

avg(Sal) = 32k
avg(age) = 2575

Age	Gender	Sal
29	M	50k
25	F	NA
28	M	29k
NA	M	28k
21	F	21k

25.75

32

Garbage value
NOISE

Analysis ✓

actual insights ?

Wrong
Biased
Not True

- objective → EDA → we don't perform missing value imputation

- objective → Machine Learning modelling → various ML-Algo. (They can't operate on a data with missing values)

Necessity to perform missing value imputation ✓

df.duplicated() ⟶

	c_1	c_2	c_3	c_4	
0	a_1	b_1	c_1	d_1	⟶
1	a_1	b_1	c_1	d_1	⟶
2	a_2	b_2	c_2	d_2	
3	a_1	b_1	c_1	d_1	⟶

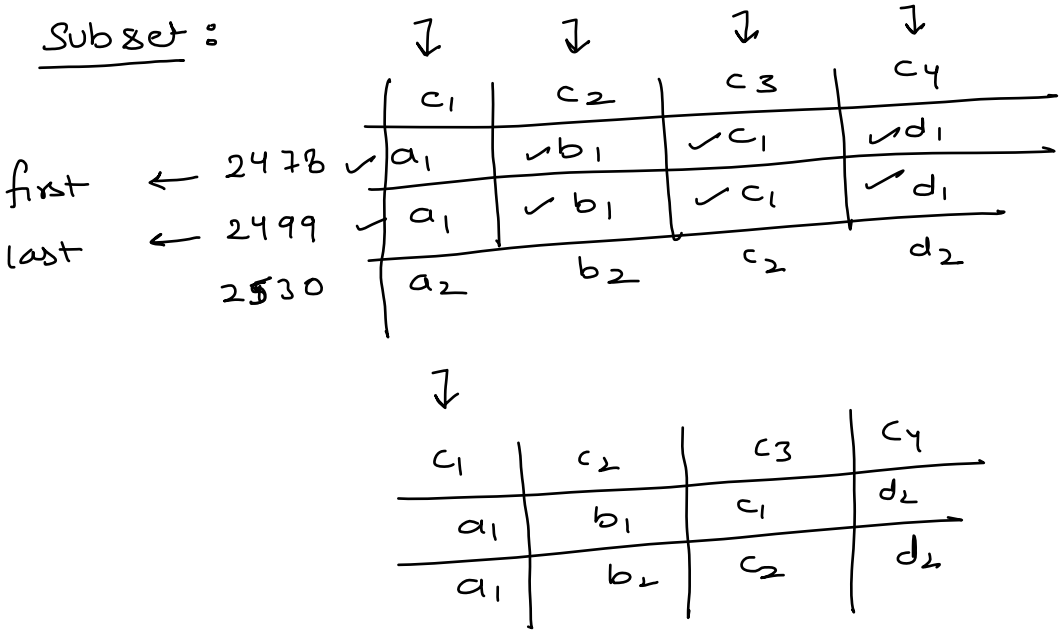
0	False ⟶
1	True ⟶
2	False
3	True ⟶

0
1
0
1
⟶ (2)
= Count of True

True ⟶ 1
False ⟶ 0

df.drop_duplicates()

Subset :

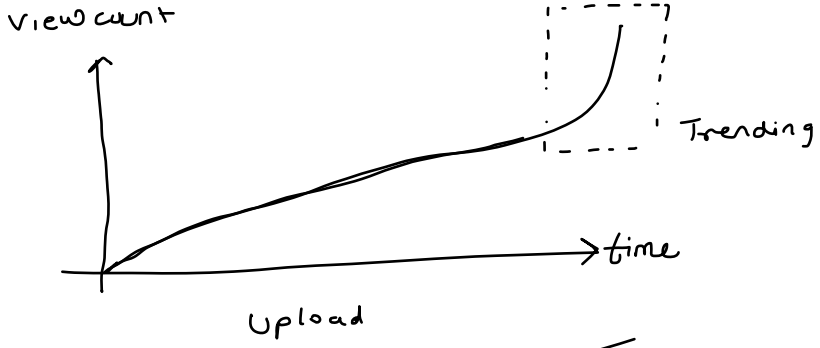


complete duplicated rows

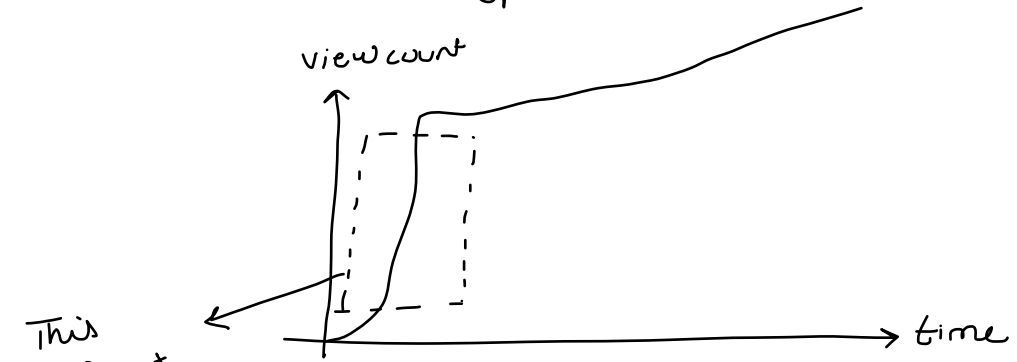
We are looking at the data by considering all the columns ?

Subset → column name on which you want to check for duplicated entries

by default it will check all the columns (complete duplicated rows)



Upload



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