



AEROFIT

CASE STUDY

REVIEW

Class starts
@ 9:10pm

Agenda

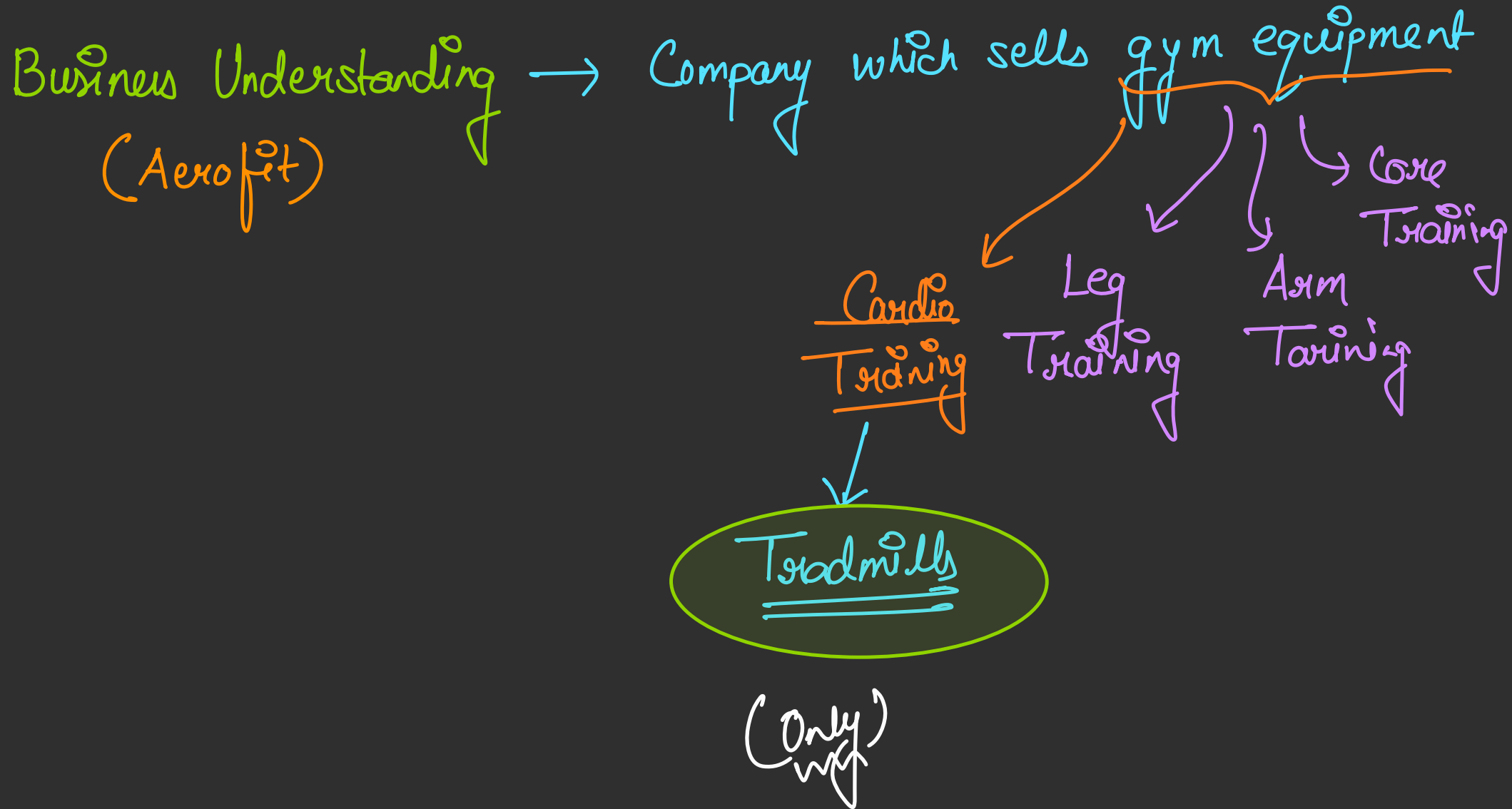
- 1) Problem Statement
- 2) Exploring the data (EDA)
- 3) Conclusion
- 4) Q/A

1.5 h
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10:30pm



# # problem Statement



Products

{ Kp 781  
Kp 481  
Kp 281

problem statement?

→ Understand the problem

① Scoping → What is the problem Statement?  
→ Do we have all the required data?  
→ Are those data useful?

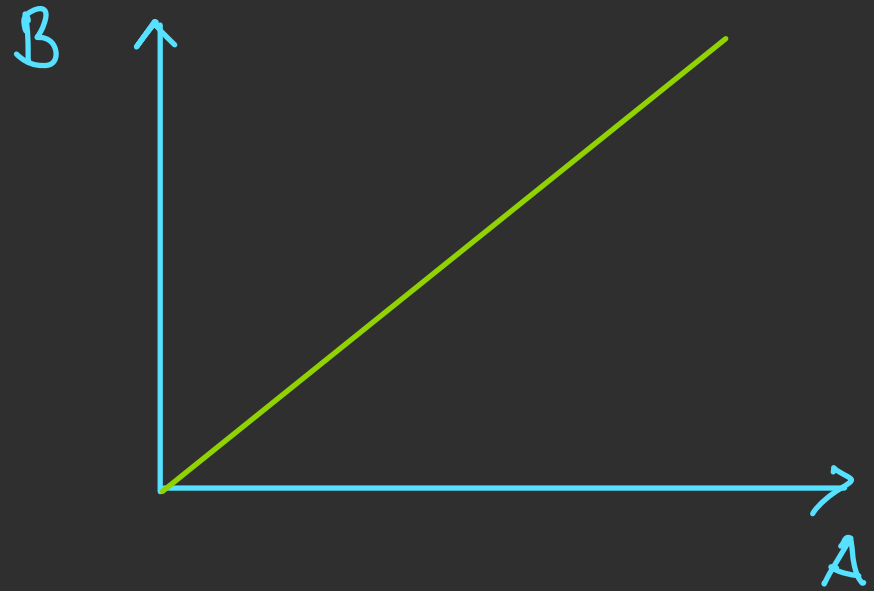
② Data Analysis → EDA (column profiling, Null value identification/treatment, Outlier treatment/Column creation, viz)

③ Observation/Insights & Recommendation  
Your analysis result      Your suggestion Action Items for the leadership

$$A \propto B$$

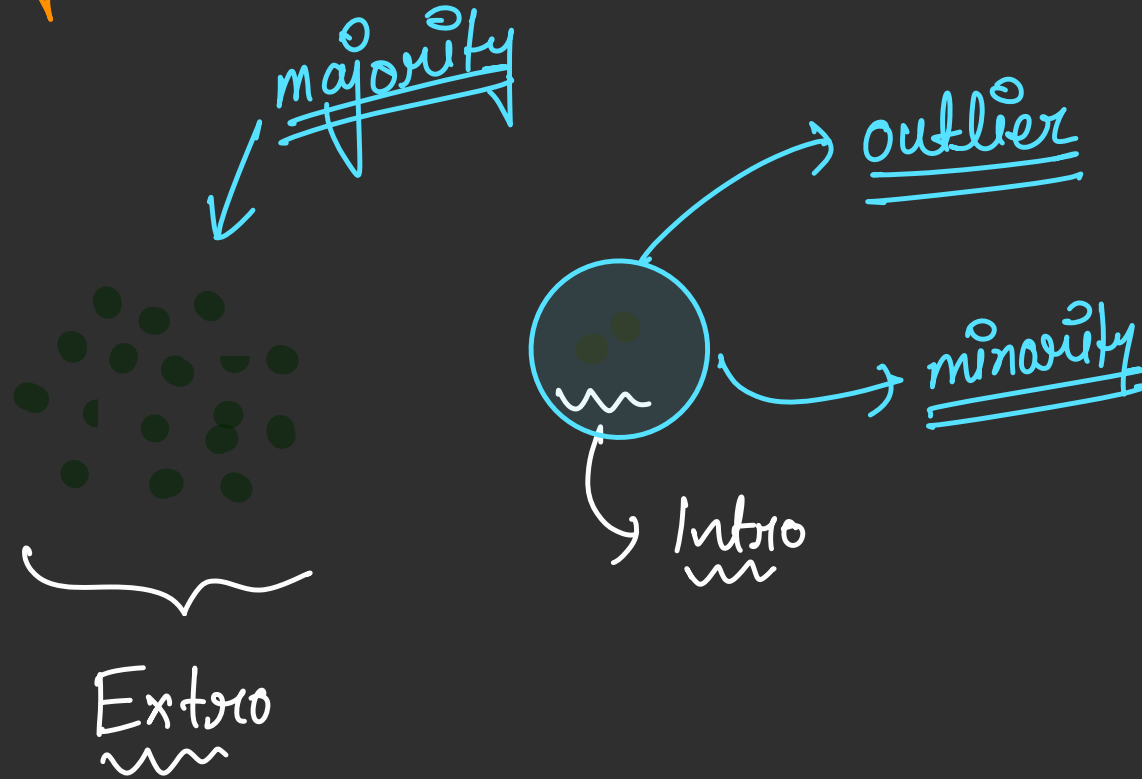
A↑

B↑



# Outlier

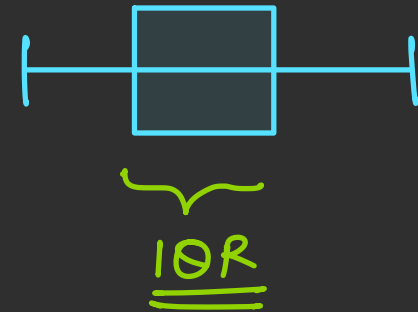
Are lonely data points



## 1) IQR Method

$$\begin{cases} Q_1 \rightarrow 25^{\text{th}} \text{ per} \\ Q_2 \rightarrow 50^{\text{th}} \text{ per} \\ Q_3 \rightarrow 75^{\text{th}} \text{ per} \end{cases}$$

$$IQR = Q_3 - Q_1$$

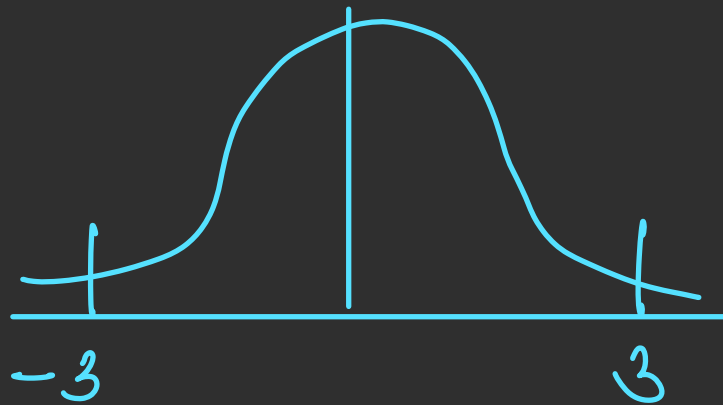


$$\begin{cases} \underline{\underline{x_1}} = Q_1 - 1.5 \times IQR \\ \underline{\underline{x_2}} = Q_3 + 1.5 \times IQR \end{cases}$$

## 2) Z score

$$z = \frac{x - \mu}{\sigma}$$

col  $\rightarrow$  z score  $\rightarrow$





df  
→ Income

OR →

df-copy  
→ Income

0 — 89000  
└──────────┘

Mean

0 — 6000  
└────────┘

Mean'

- 1) If you have a large dataset, where you can sacrifice some data pts.
- 2) Outlier are anomalies, rare event. If the data pts are actually more then remove it