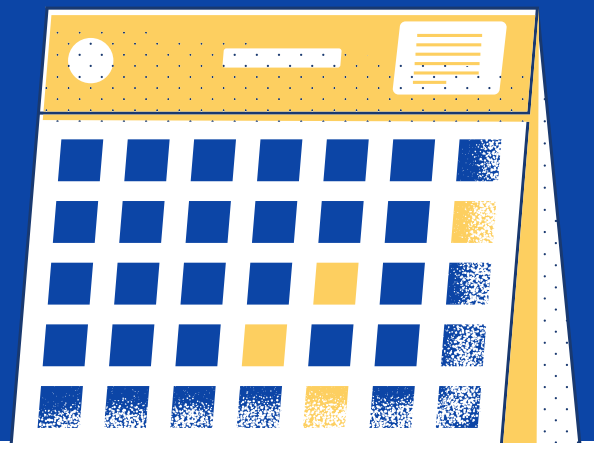
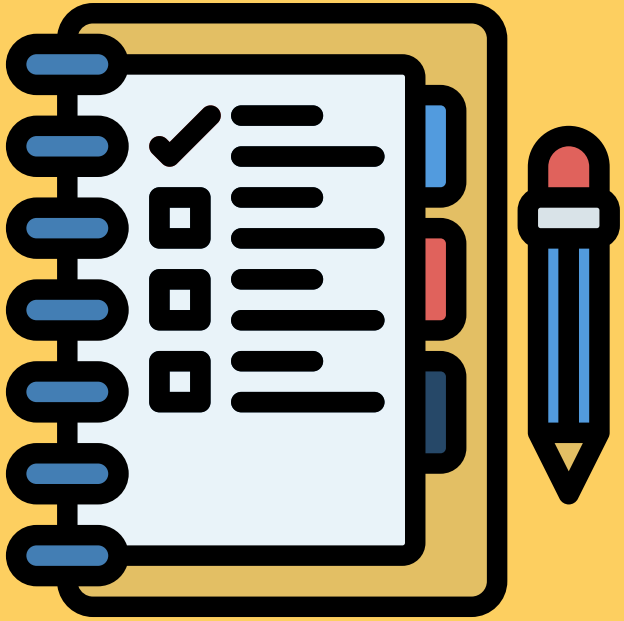
Data Fundamentals

Descriptive Statistics - Part I

GOALS



- Introduction to Data
- Understand Data Types
- Master Central Tendency Measures
- Introduction to Notation

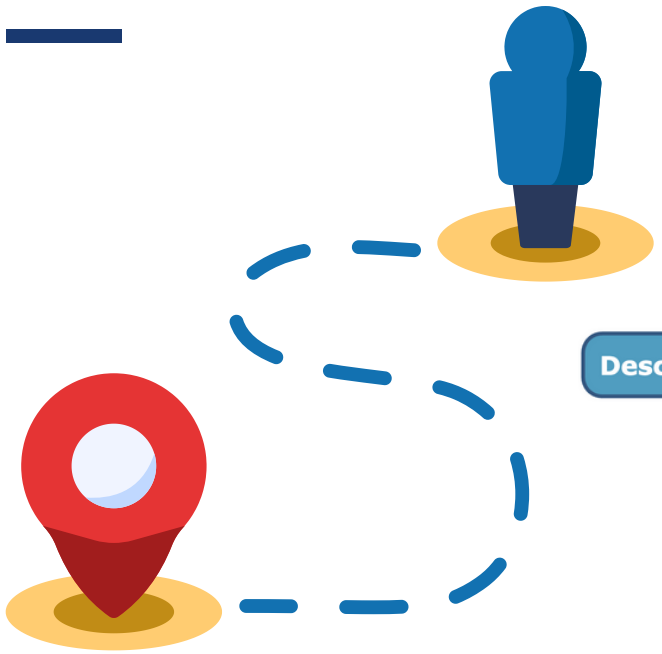


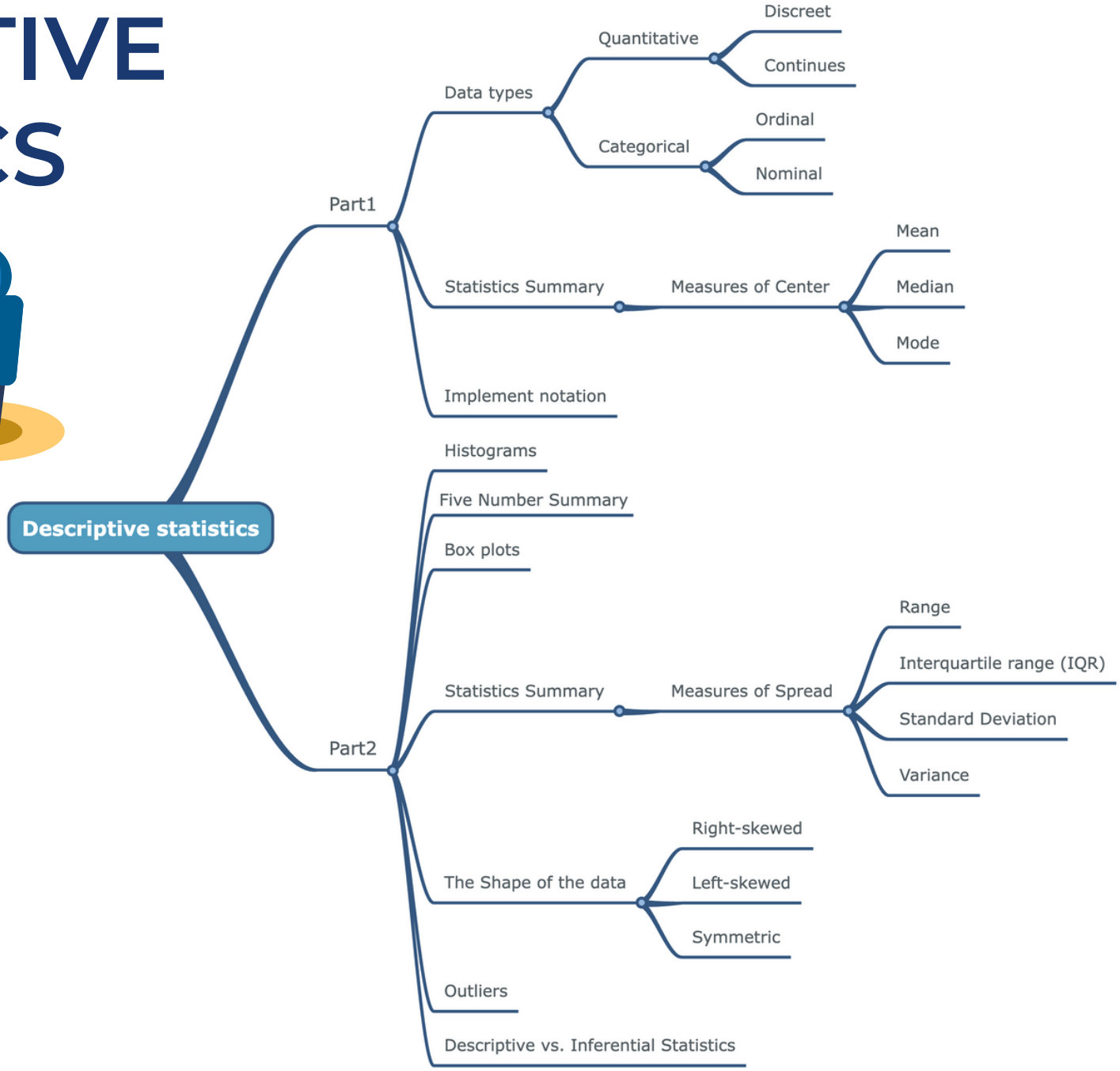
AGENDA

- Welcome and Introduction to data
- Descriptive statistics roadmap
- Data Types
- Measures of Center
- Introduction to Notation
- Q&A

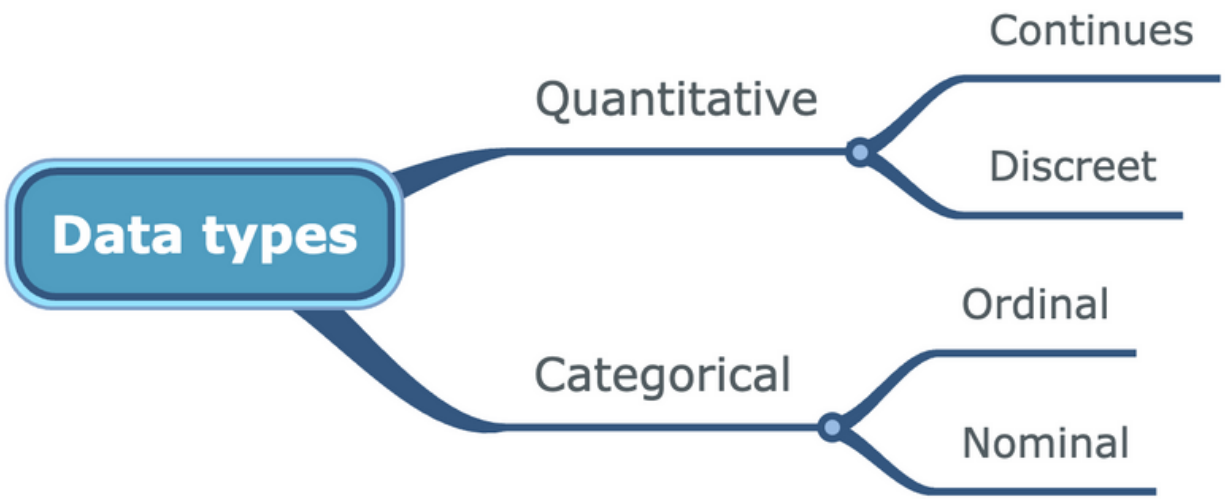
Behind every data point, there's a story waiting to be told.

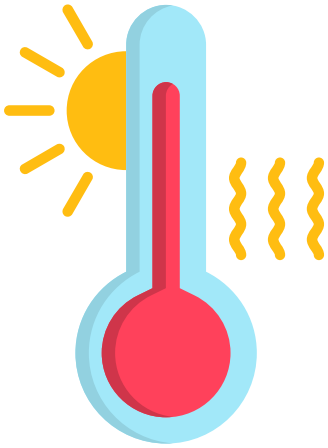
DESCRIPTIVE STATISTICS





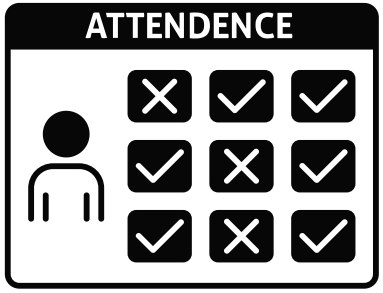
DATA TYPES

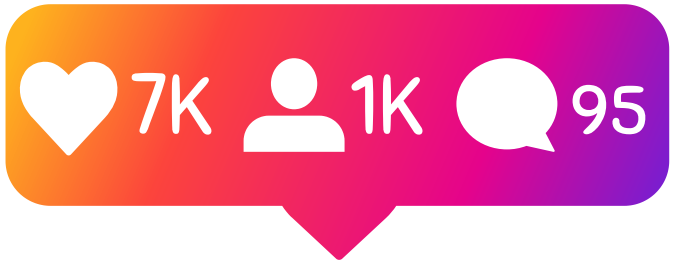

Data types
Quantitative
Continues
Discreet
Categorical
Ordinal
Nominal

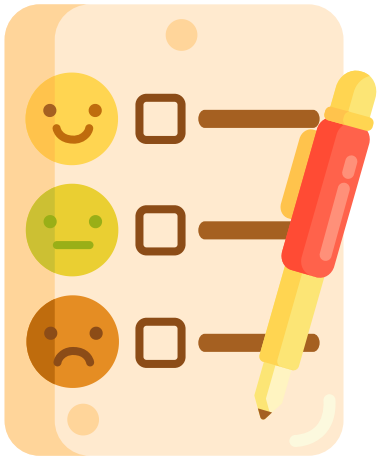


Quantitative

- Continues
- Discreet

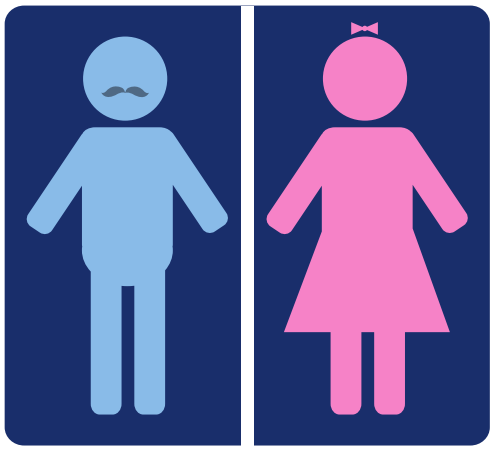


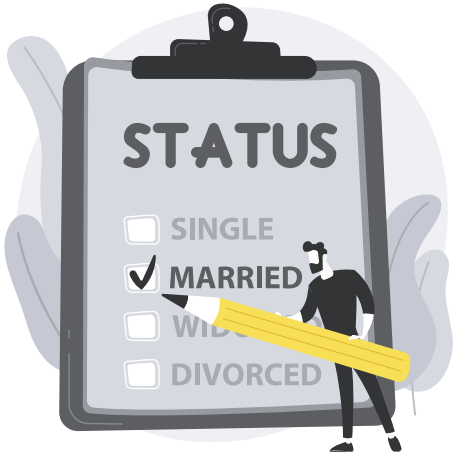


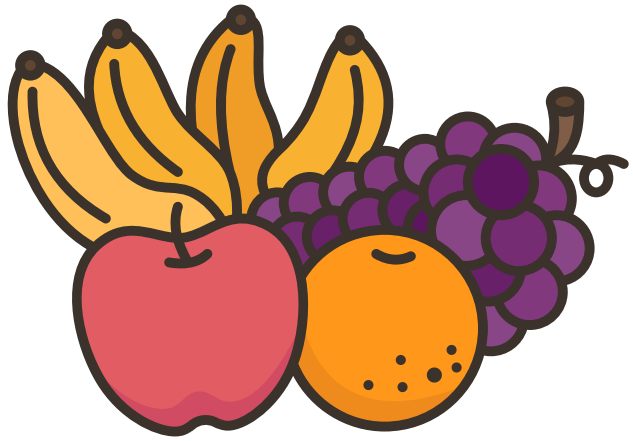



MEDIUM
LOW
HIGH
RISK

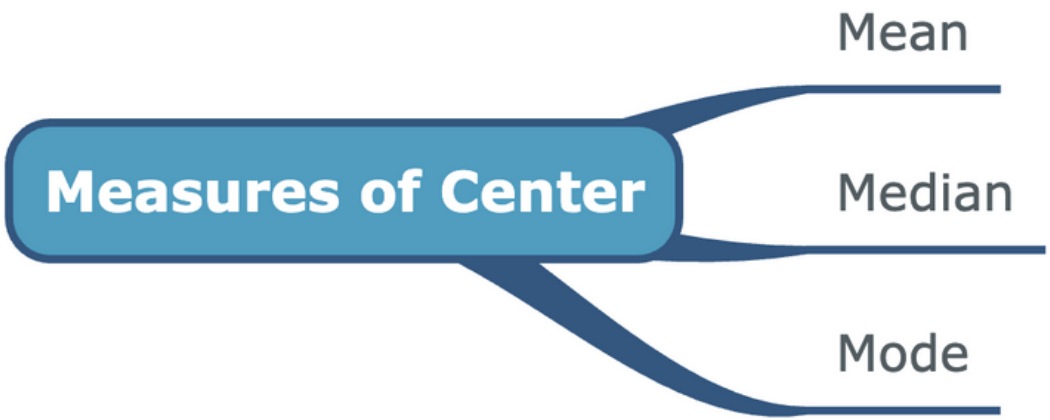

Categorical
Ordinal
Nominal

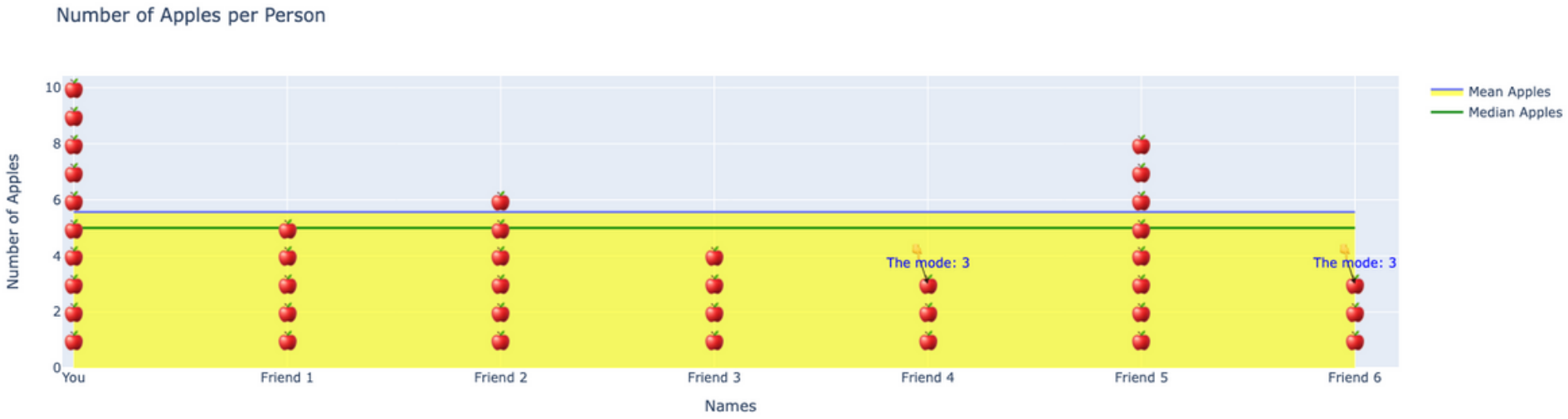



STATUS
SINGLE
MARRIED
DIVORCED



MEASURES OF CENTER





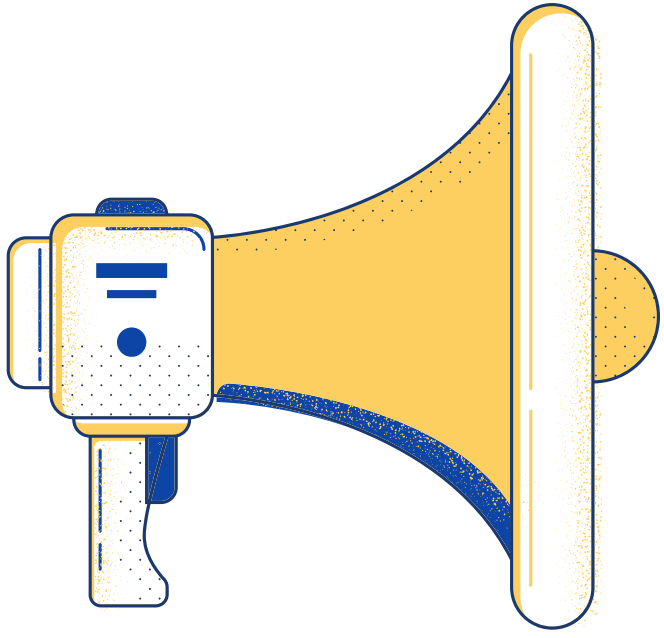
NOTATION

$\bar{x}$ (pronounced as "x-bar")

Σ (pronounced as "sigma")

$$\sum_{i=m}^{n} a_i = a_m + a_{m+1} + a_{m+2} + \cdots + a_{n-1} + a_n$$

$$\bar{x} = \frac{1}{n}\left(\sum_{i=1}^{n} x_i\right) = \frac{x_1 + x_2 + \cdots + x_n}{n}$$

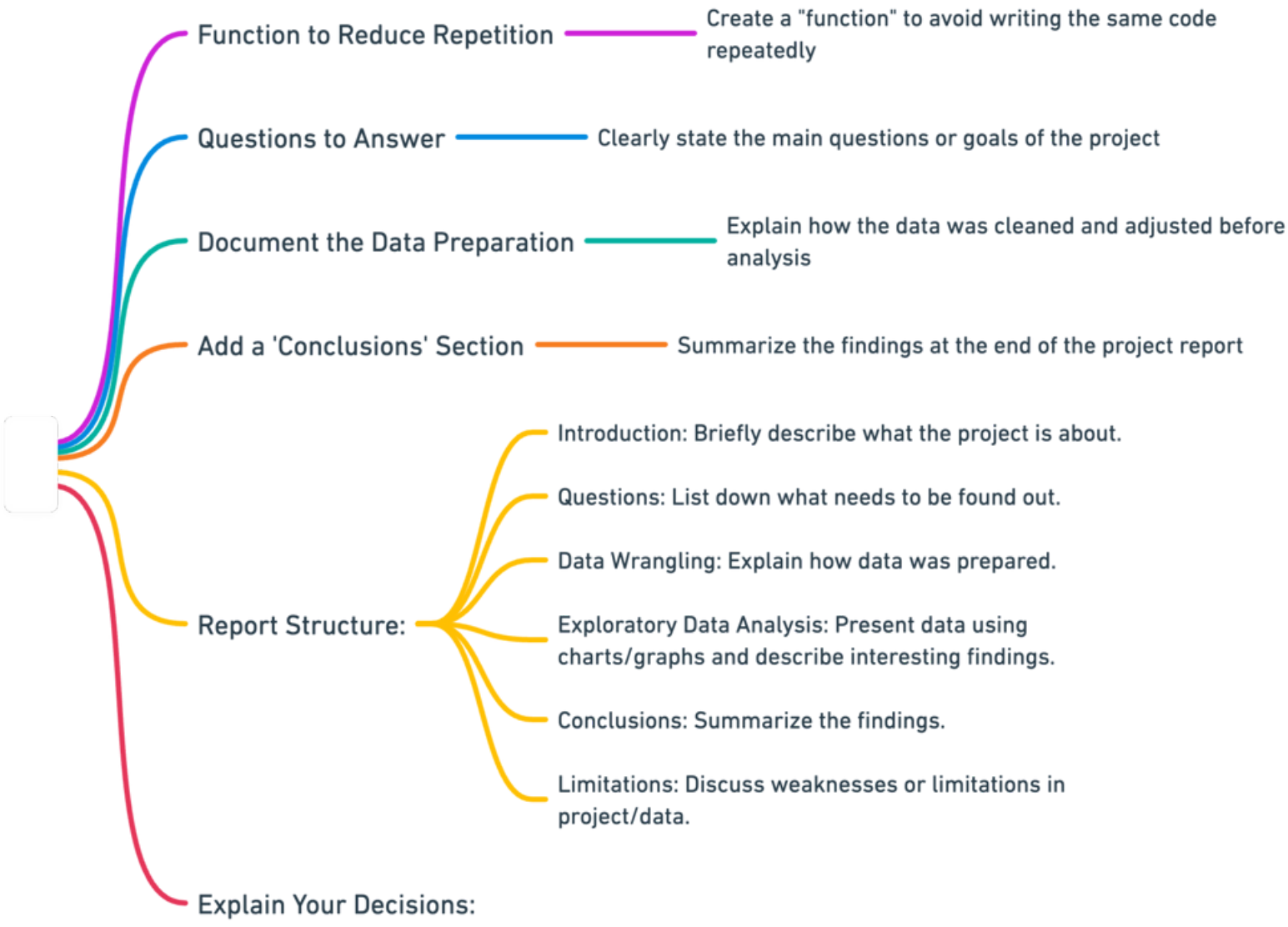


Q&A Session: Let's explore and understand together

RESOURCES

- Mean, Median, and Mode of Apples
- Descriptive statistic roadmap

Your presence today has added value to our shared learning journey. Thank you for joining us!


Function to Reduce Repetition
Create a "function" to avoid writing the same code repeatedly
Questions to Answer
Clearly state the main questions or goals of the project
Document the Data Preparation
Explain how the data was cleaned and adjusted before analysis
Add a 'Conclusions' Section
Summarize the findings at the end of the project report
Report Structure:
Introduction: Briefly describe what the project is about.
Questions: List down what needs to be found out.
Data Wrangling: Explain how data was prepared.
Exploratory Data Analysis: Present data using charts/graphs and describe interesting findings.
Conclusions: Summarize the findings.
Limitations: Discuss weaknesses or limitations in project/data.
Explain Your Decisions: