



Data



Analysis



Idea

outlines

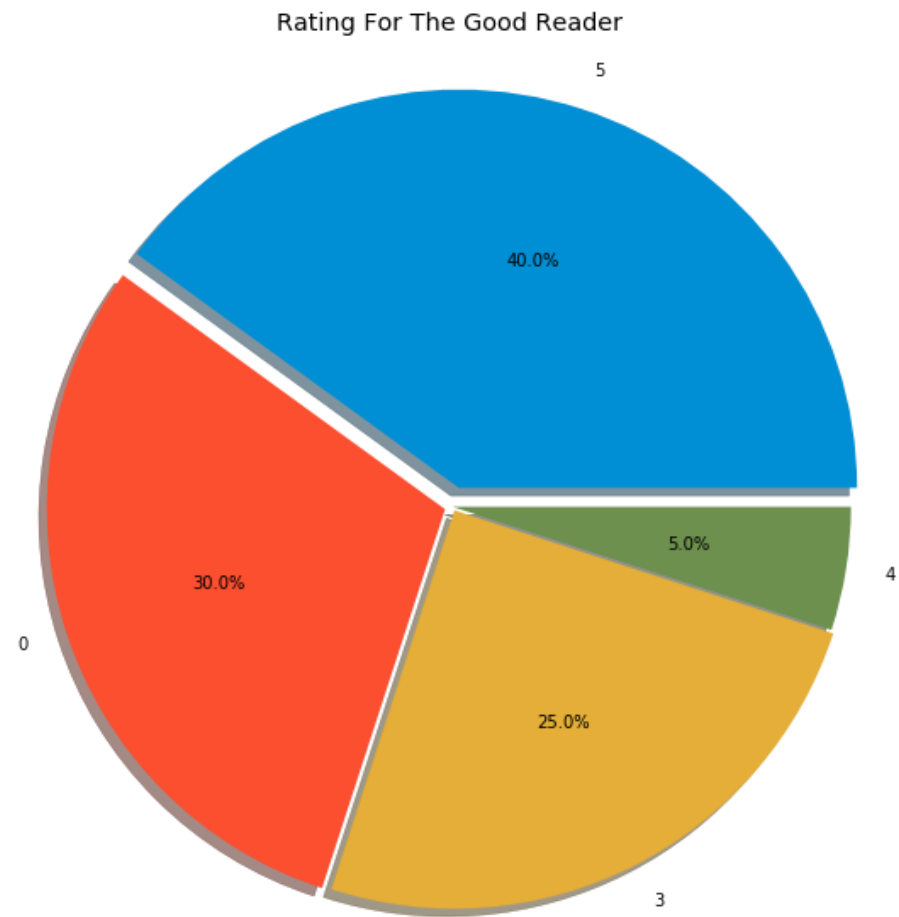
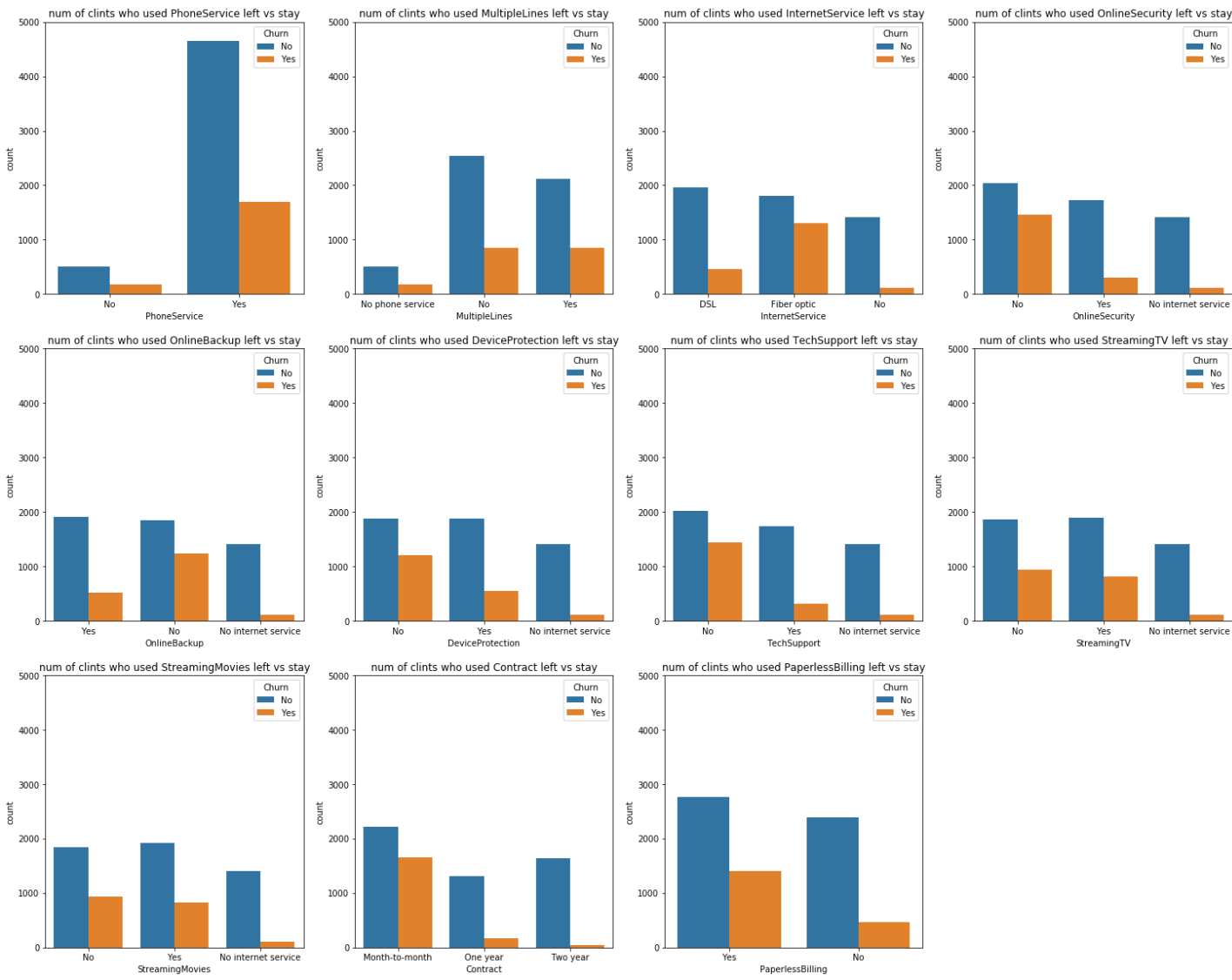
- What is data analysis?
- Data Analysis Process
- Case Study

What is data analysis?



Types of Data Analysis: Techniques and Methods

Statistical Analysis



Text Analysis

Terrible Service - I **ordered** a a brand new computer from the web store. I'm **furious** to find out that the **tracking number** doesn't work and my **order** might be lost. Please **respond ASAP**.

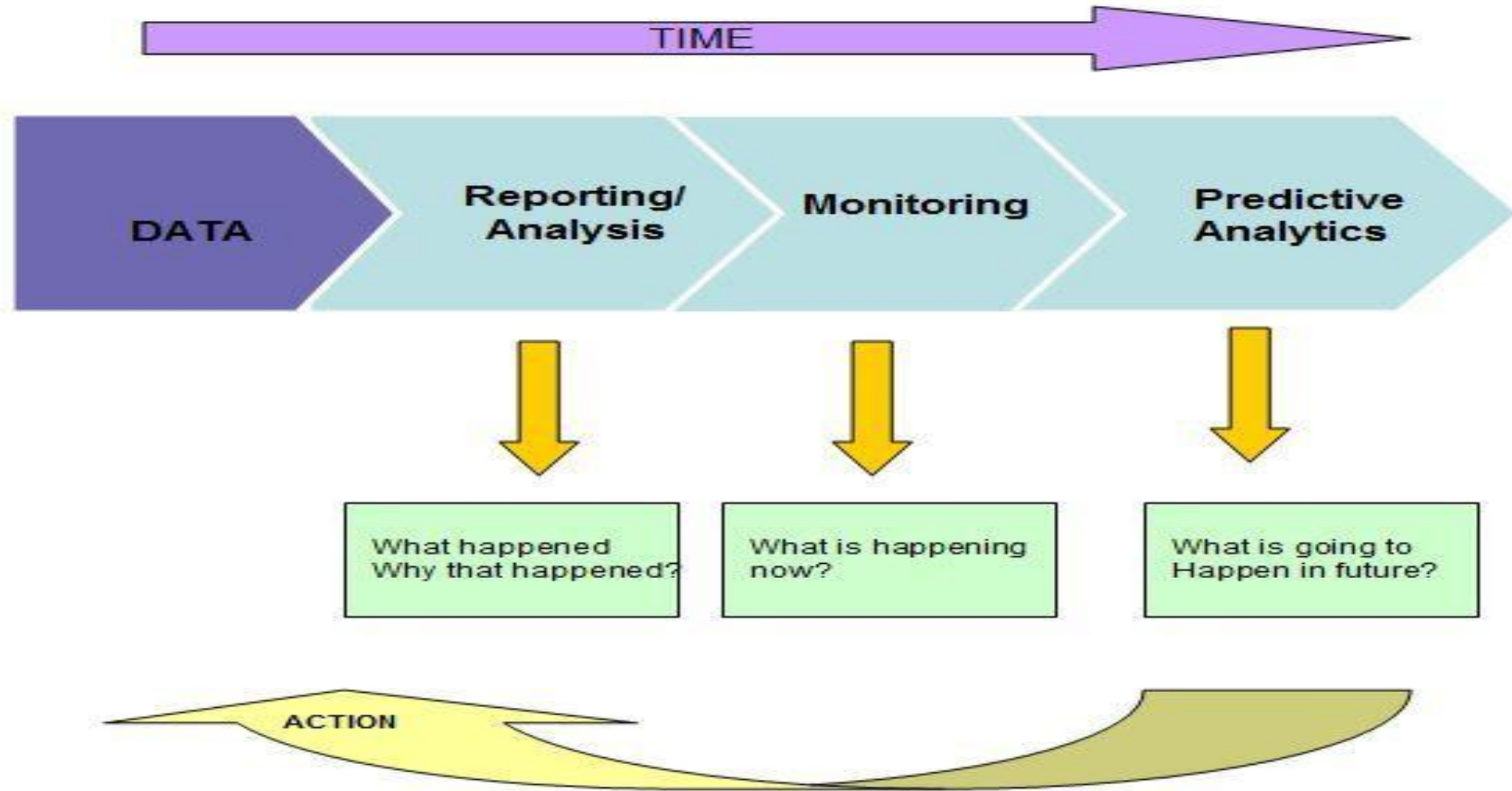
Order Issue

Negative

Urgent



Predictive Analytics



Data Analysis Process

Data analysis process steps



Step 1

Defining the question

Problem statement

What business problem am I
trying to solve?

Open the notebook

Step 2

Collecting the data

(numeric) data

Text data

Images data

other

From: CSV files – APIs – Web scraping – Database

Step 3

Wrangling and Cleaning the data

Removing major errors, duplicates, and outliers

Removing unwanted data points

Bringing structure to your data

Filling in major gaps

EDA

Open the notebook

Data Science



Step 4

Data Analysis | EDA

Descriptive analysis

Descriptive analysis identifies what has already happened

Predictive analysis

Predictive analysis allows you to identify future trends based on historical data

Diagnostic analysis

Diagnostic analytics focuses on understanding why something has happened

Prescriptive analysis

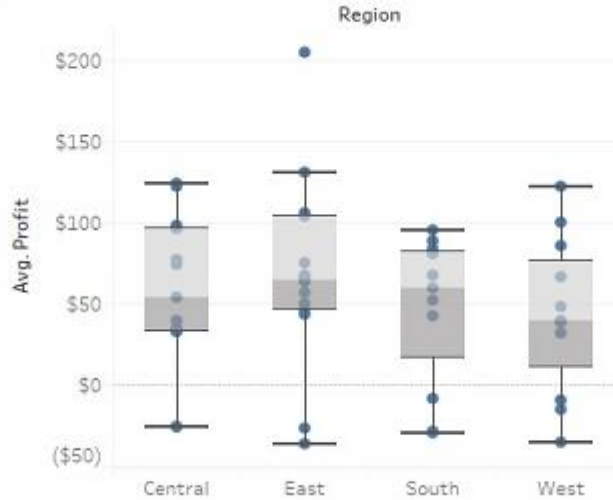
Prescriptive analysis allows you to make recommendations for the future

Sharing your results

Sales by region



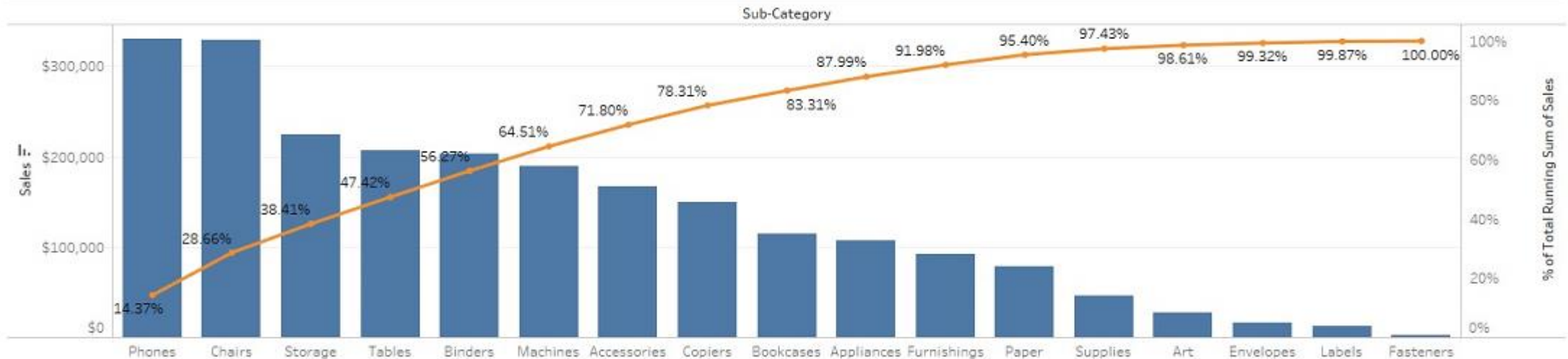
Avg. profit distribution by region



Sales trend



Top sub categories with maximum sales



Cases study

data

<https://www.epa.gov/compliance-and-fuel-economy-data/data-cars-used-testing-fuel-economy>

Download

https://video.udacity-data.com/topher/2018/October/5bc6498d_fuel-economy-datasets/fuel-economy-datasets.zip