Data Visualization Begins with Me

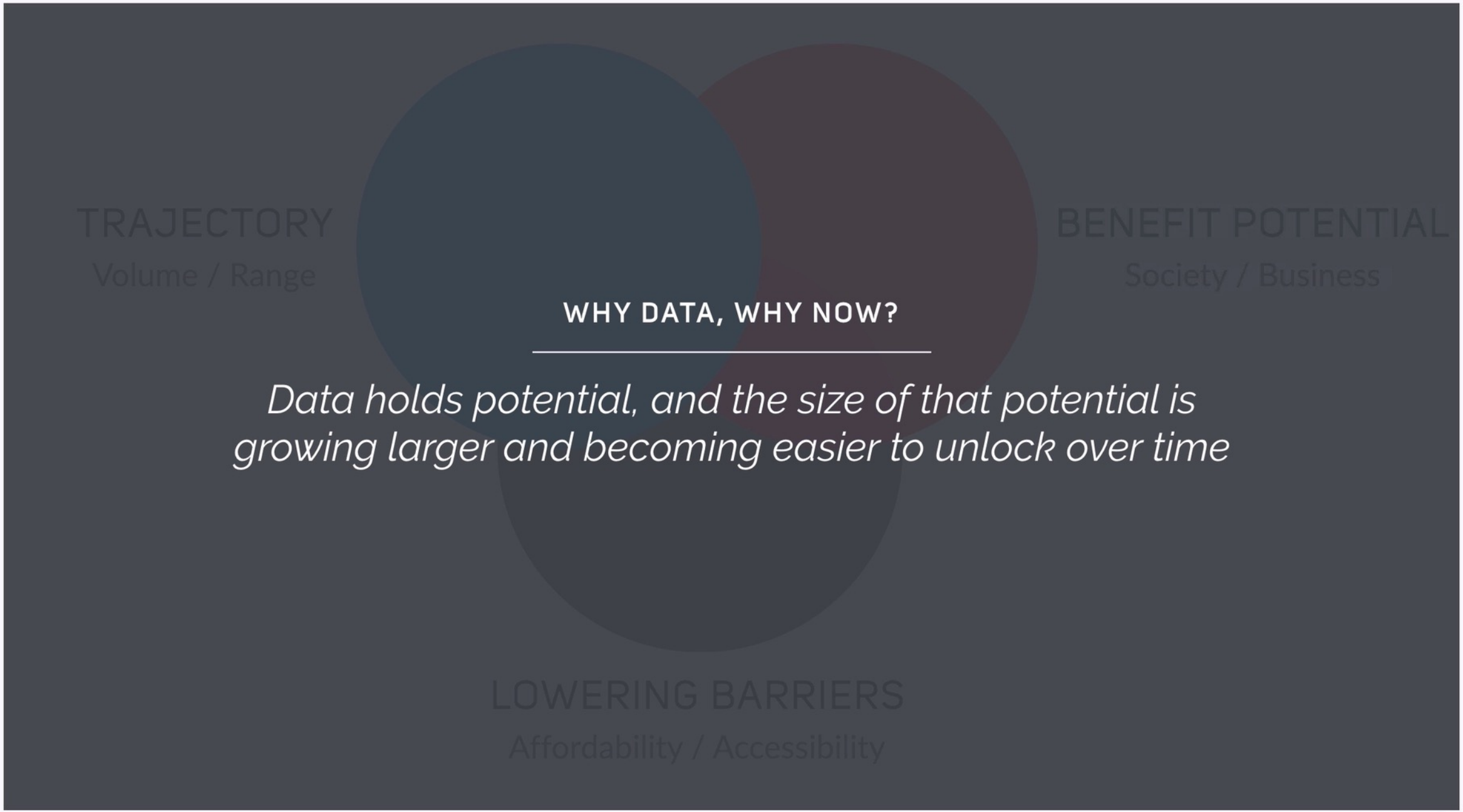
using
Microsoft Power BI

Related Resources

https://arif.works/uob-series

QUESTION #1 **WHY DATA, WHY NOW?**

QUESTION #2 **WHAT IS DATA?**



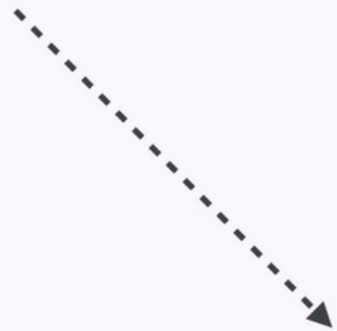
WHY DATA, WHY NOW?

Data holds potential, and the size of that potential is growing larger and becoming easier to unlock over time

QUESTION #2

WHAT IS DATA?

WHAT IS DATA?



PHILOSOHPICALLY

PRACTICALLY

Table Dimensions

$ Cost

# of Hours to Manufacture

Type and Age of Wood

# of Screws Holding the Table Together

PHILOSOPHICALLY, DATA IS A MINDSET

PRACTICALLY, WHAT IS DATA?

PRACTICALLY, DATA ARE ALL OF THE THINGS BEING RECORDED WITH TECHNOLOGY

DATA

Data are all of the things being recorded that get used as a raw material for making life's decisions, helping build better products, and sharing remarkable stories

NEXT

GENRES, ROLES AND SKILLS OF DATA PROFESSIONALS


DATA ANALYTICS
DATA SCIENCE
DATA ENGINEERING

DATA ANALYTICS

Decisions with Data

DATA ANALYTICS

Decisions with Data

1. WHAT HAPPENED

What were our sales?

How many users registered?

How many subscriptions cancelled?

DATA ANALYTICS

Decisions with Data

2. WHY DID IT HAPPEN

What models of cars sold?

What platform are users registering with?

What movie was watched before cancellation?

DATA ANALYTICS

Decisions with Data

3. WHAT IS LIKELY TO HAPPEN

What will sales be?

How many users will we have?

Will subscription cancellations start to slow down?

DATA ANALYTICS

Decisions with Data

4. WHAT ACTION SHOULD WE TAKE

How do we grow sales?

How do we get 2 billion users?

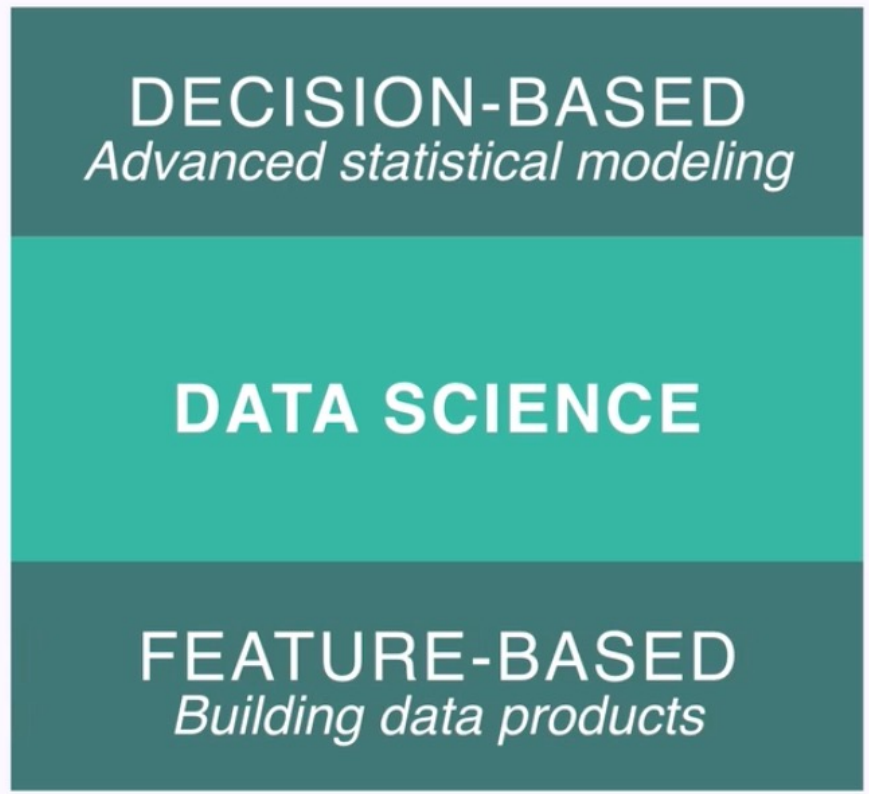
How do we reduce cancellations by 10%?

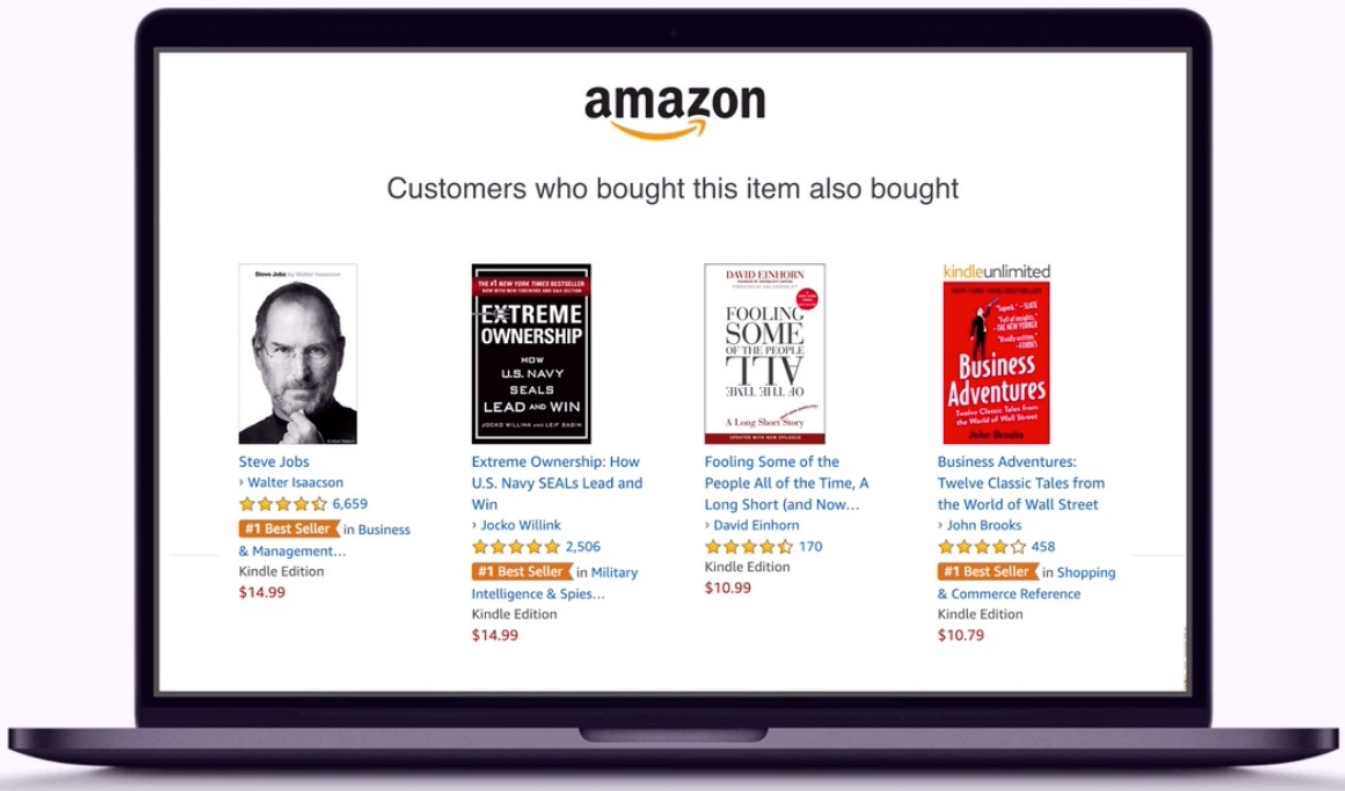
DATA ANALYTICS

Decisions with Data

1. WHAT HAPPENED
2. WHY DID IT HAPPEN
3. WHAT IS LIKELY TO HAPPEN
4. WHAT ACTION SHOULD WE TAKE

DATA SCIENCE


DECISION-BASED
Advanced statistical modeling
DATA SCIENCE
FEATURE-BASED
Building data products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Customers who bought this item also bought
Steve Jobs
› Walter Isaacson
6,659
#1 Best Seller in Business & Management…
Kindle Edition
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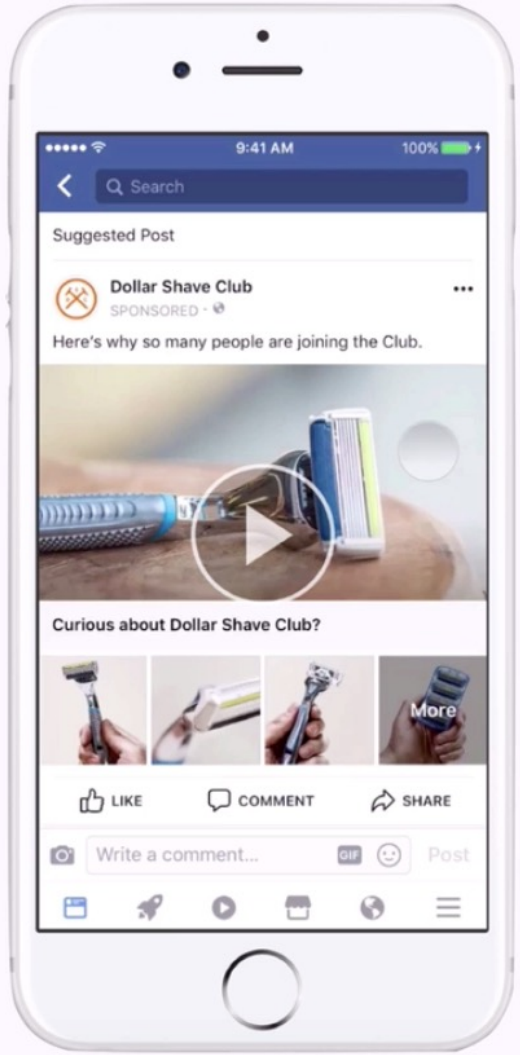
9:41 AM
100%
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Suggested Post
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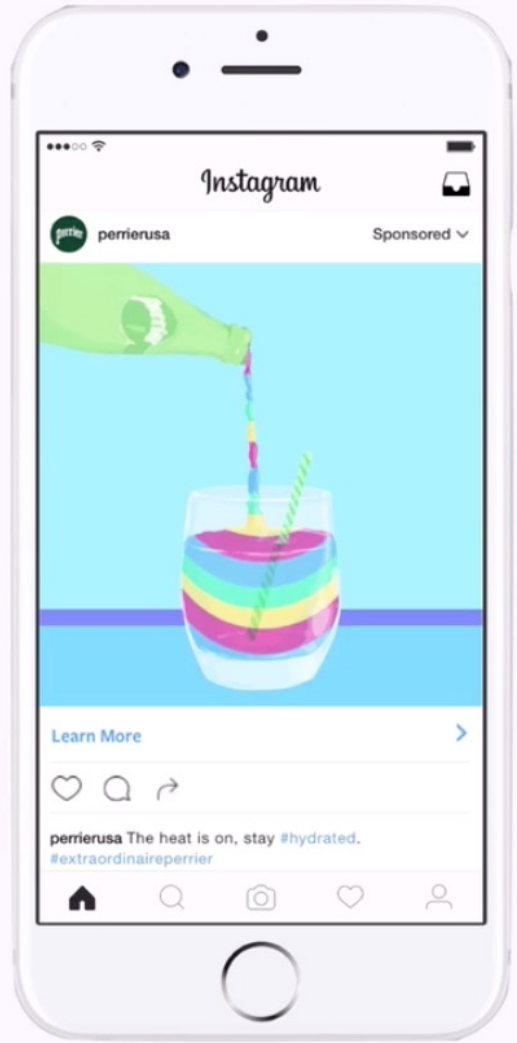
Curious about Dollar Shave Club?
More
LIKE
COMMENT
SHARE
Write a comment...
Post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perrierusa The heat is on, stay #hydrated.
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DATA ANALYTICS
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DECISION-BASED
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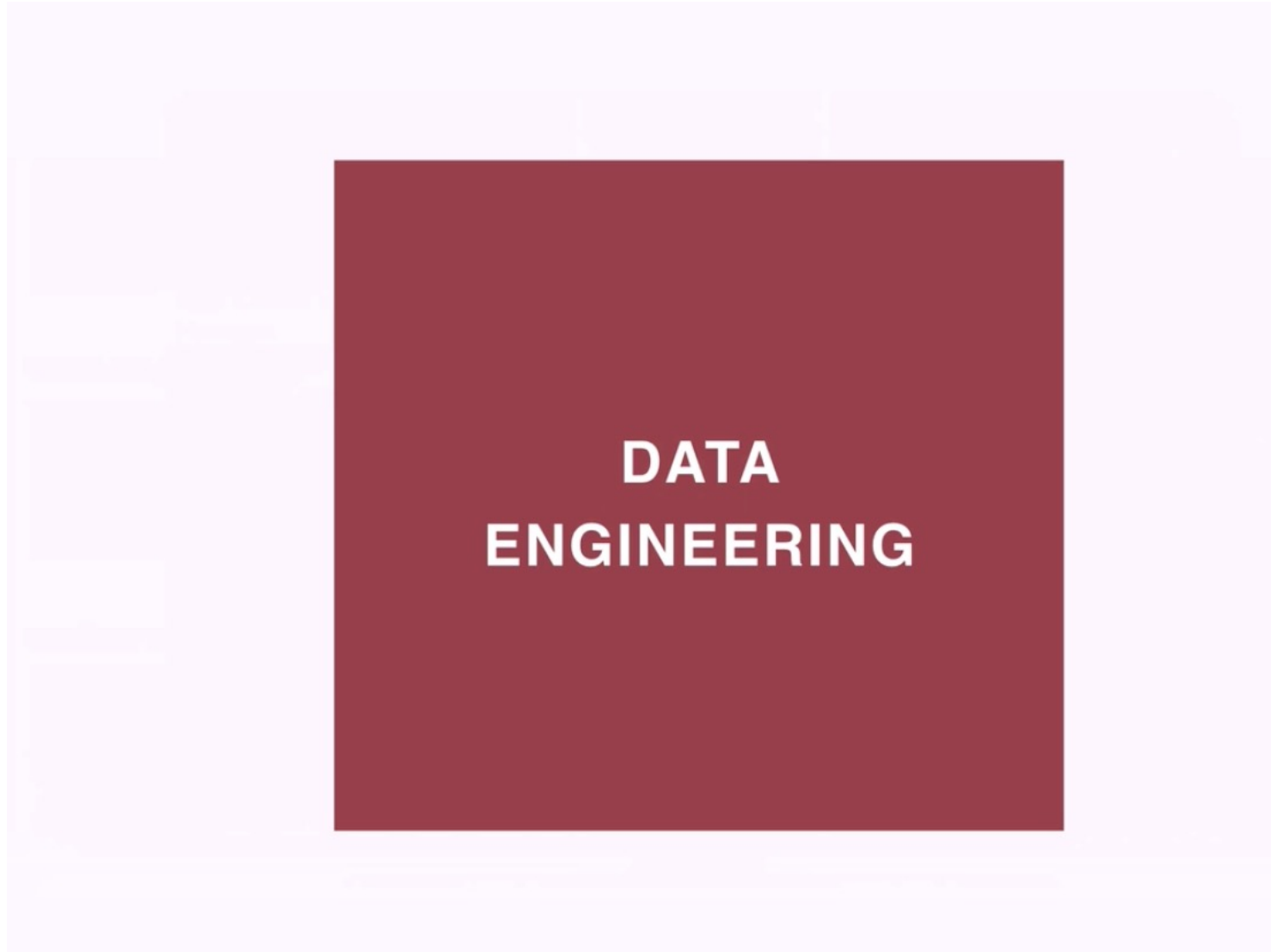
DATA
ENGINEERING


DATA
ENGINEERING

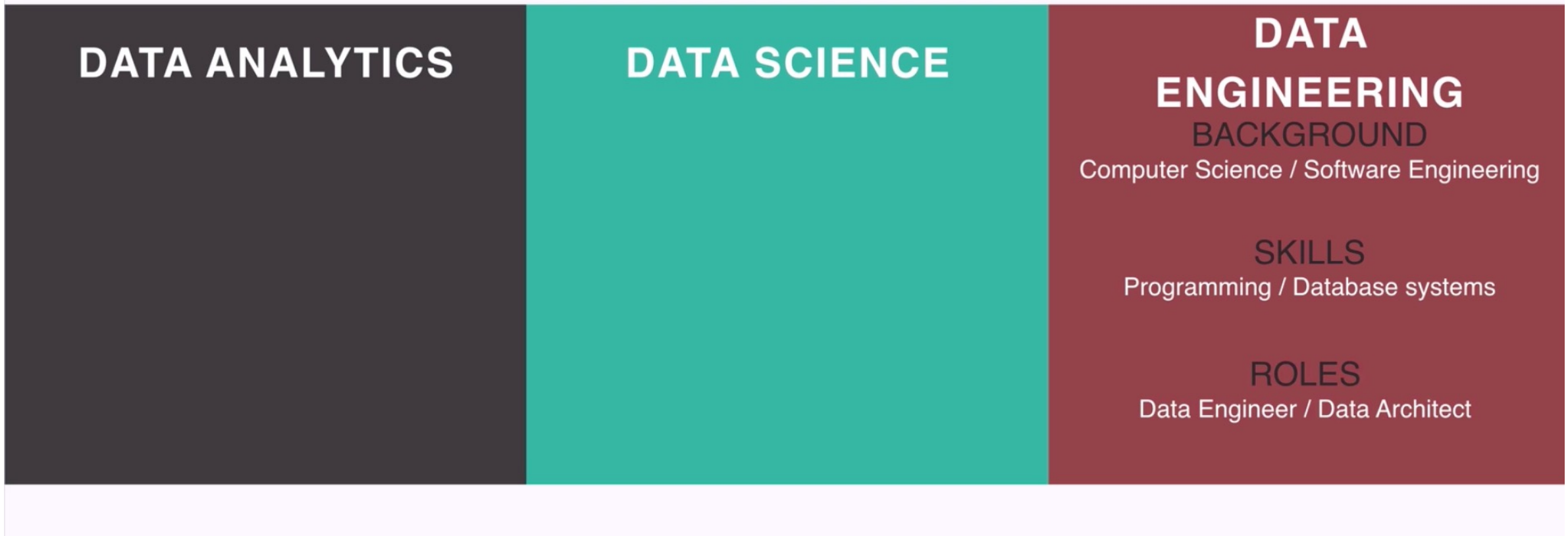
DATA ENGINEERING

Implementing infrastructure
(that enables Data Analytics & Science)

Implementing infrastructure allowing real-time recommendations to display immediately after activity on the site

facebook®

Implementing infrastructure that allows billions of custom advertisements to display at the right time, place, and price


DATA ANALYTICS
DATA SCIENCE
DATA ENGINEERING
BACKGROUND
Computer Science / Software Engineering
SKILLS
Programming / Database systems
ROLES
Data Engineer / Data Architect

DATA ANALYTICS

DATA SCIENCE

BACKGROUND
Computer Science / Quantitative Field

SKILLS
Programming / Statistics

ROLES
Data Scientist / ML Engineer

DATA ENGINEERING

BACKGROUND
Computer Science / Software Engineering

SKILLS
Programming / Database systems

ROLES
Data Engineer / Data Architect

DATA ANALYTICS

BACKGROUND
Open Ended

SKILLS
SQL/ Communication / Biz Acumen

ROLES
Analyst / Marketing

DATA SCIENCE

BACKGROUND
Computer Science / Quantitative Field

SKILLS
Programming / Statistics

ROLES
Data Scientist / ML Engineer

DATA ENGINEERING

BACKGROUND
Computer Science / Software Engineering

SKILLS
Programming / Database systems

ROLES
Data Engineer / Data Architect

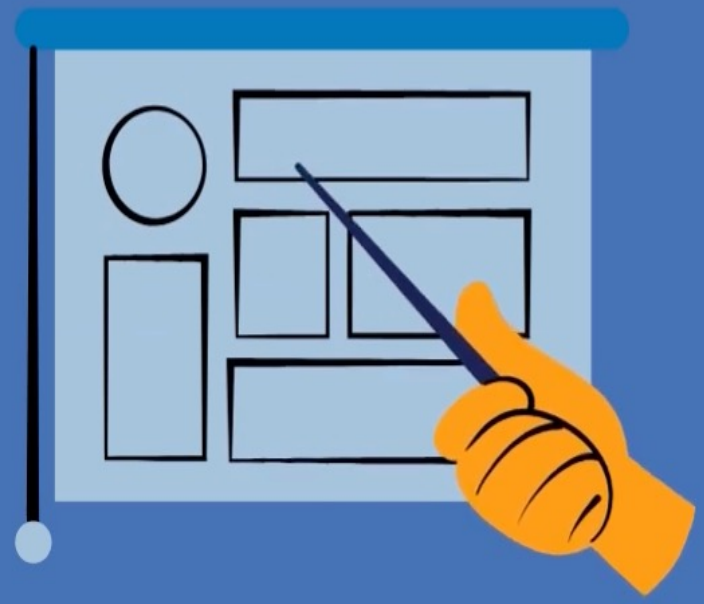
WHY DATA VISUALIZATION ?

The challenge of many people is not that they

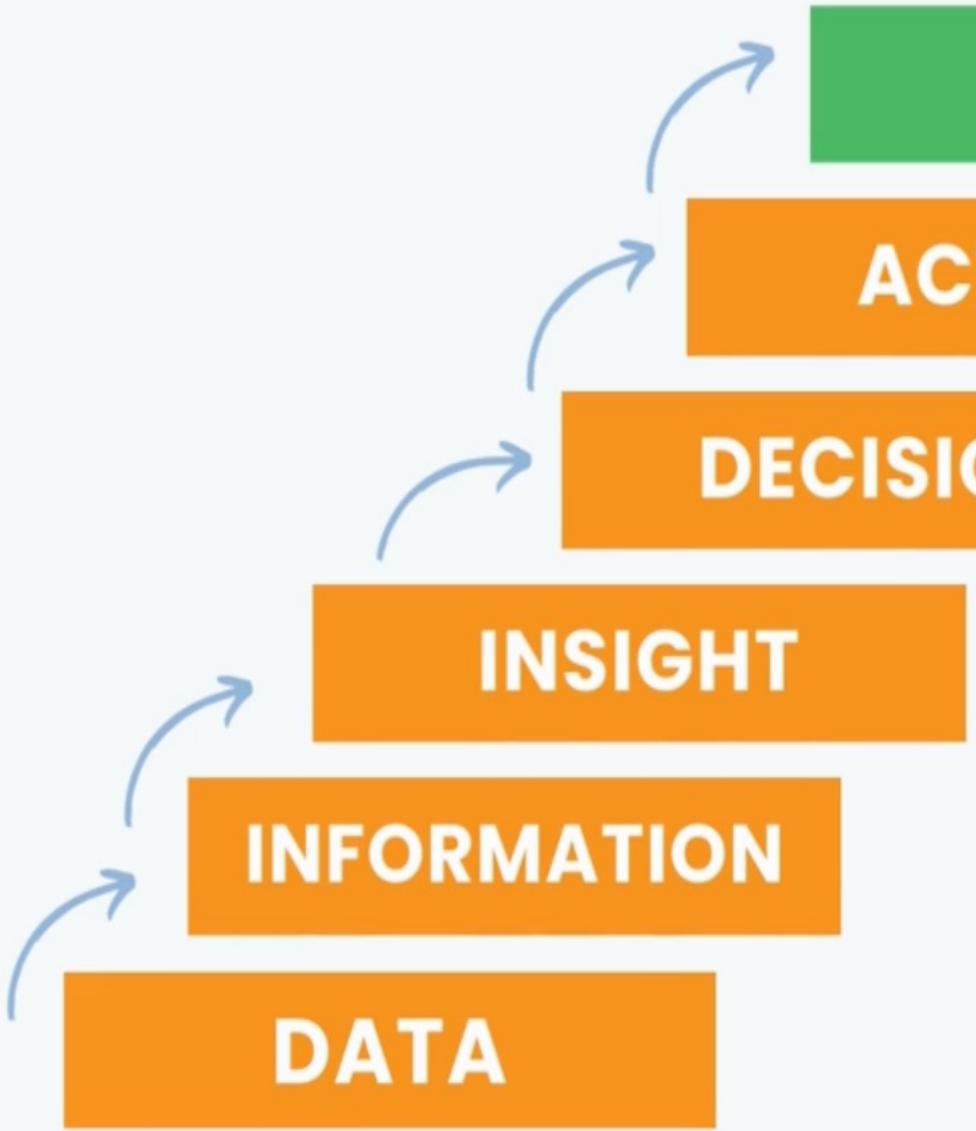
Lack meaningful data

It’s that they lack the skill in presenting this data through

Clear Stories

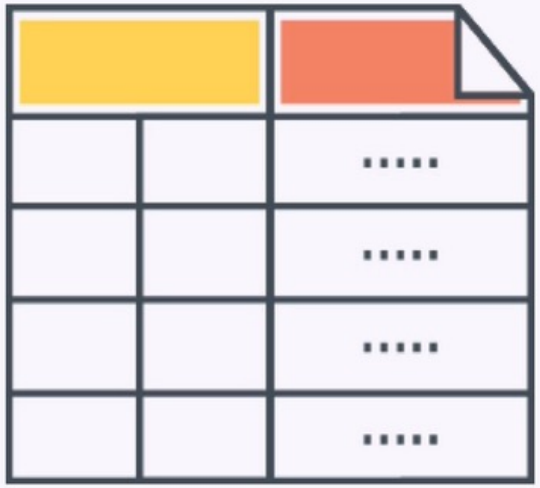


Impactful Visuals



Key Steps to Transform Data into Value

STEPS TO DO DATA VISUALIZATION



DATA

ANALYZE

SHARE

EXTRACT

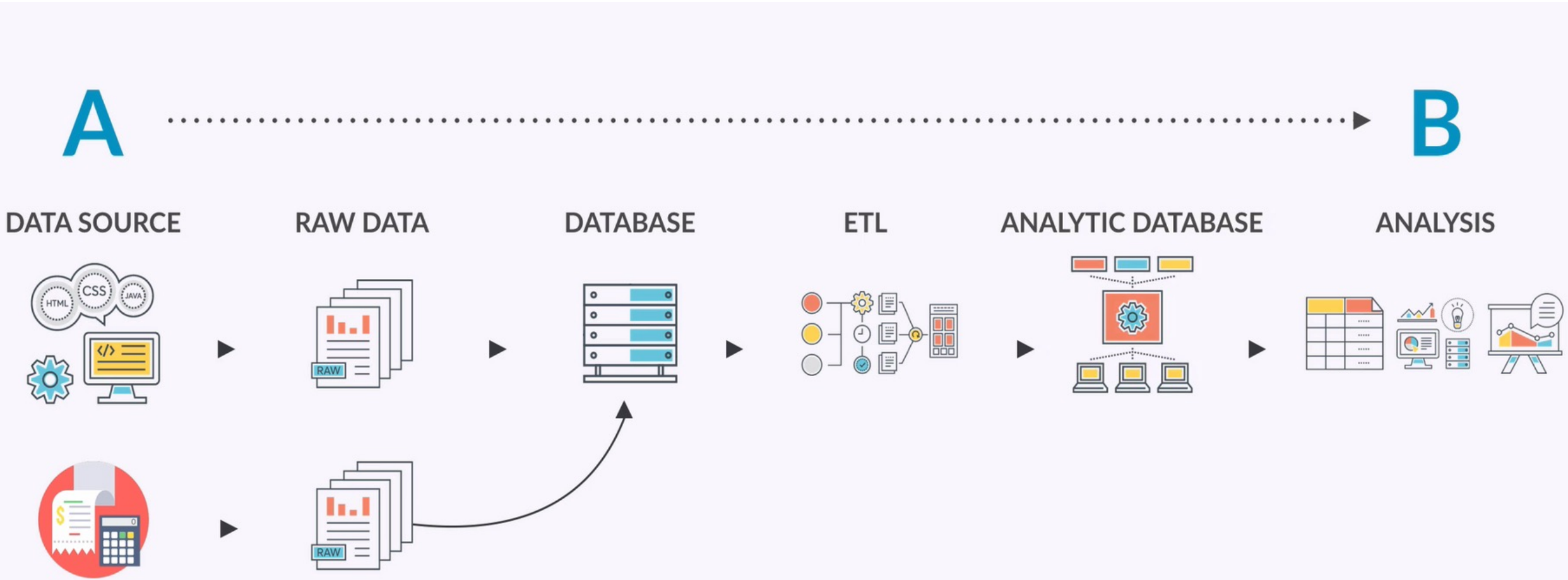
Pull raw data out from a database

TRANSFORM

Do "stuff" to the raw data (e.g. convert, delete, filter, etc.)

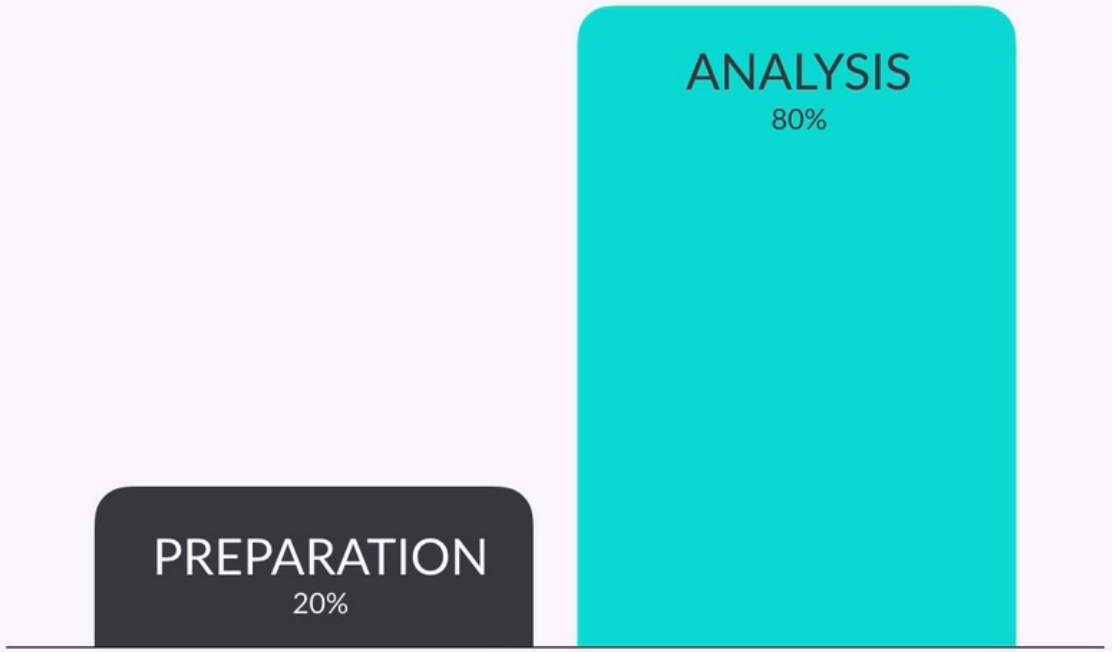
LOAD

Store transformed data in to a separate database

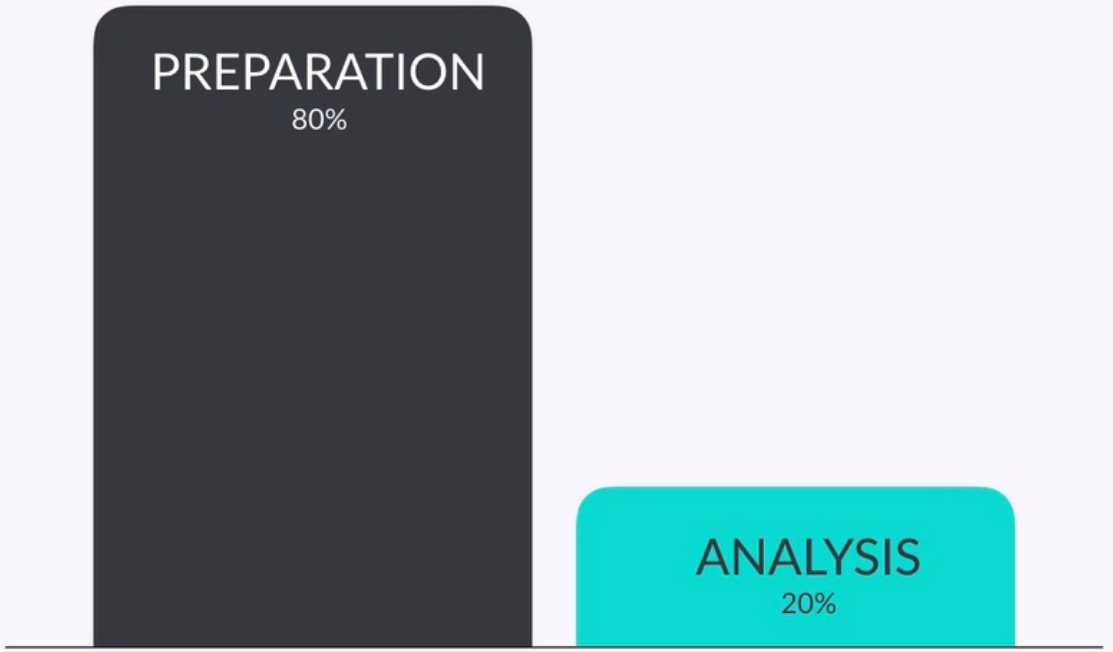

A
B
DATA SOURCE
RAW DATA
DATABASE
ETL
ANALYTIC DATABASE
ANALYSIS
HTML
CSS
JAVA
RAW
RAW

THE 80:20 PRINCIPLE

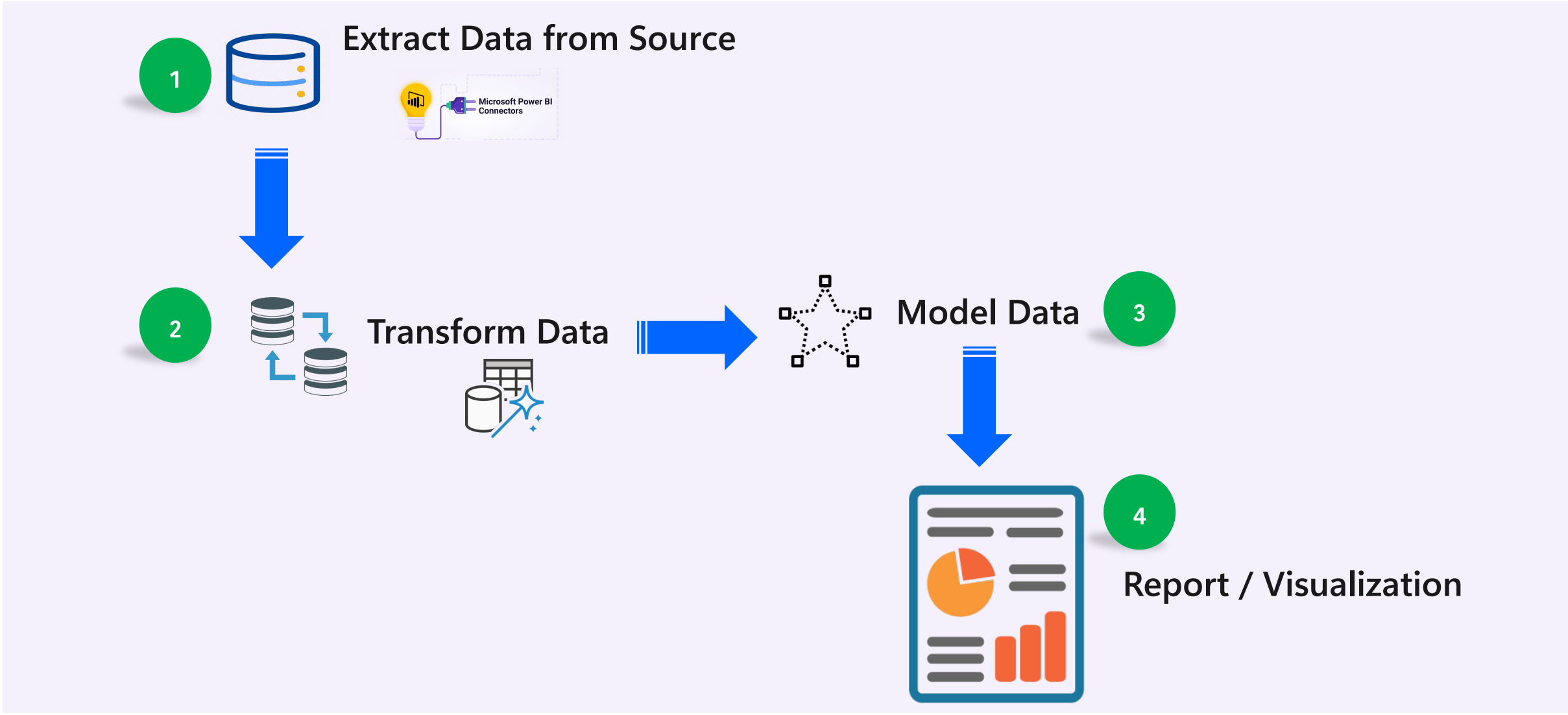
HOW TIME SHOULD BE SPENT WITH DATA:



HOW TIME IS ACTUALLY SPENT WITH DATA:



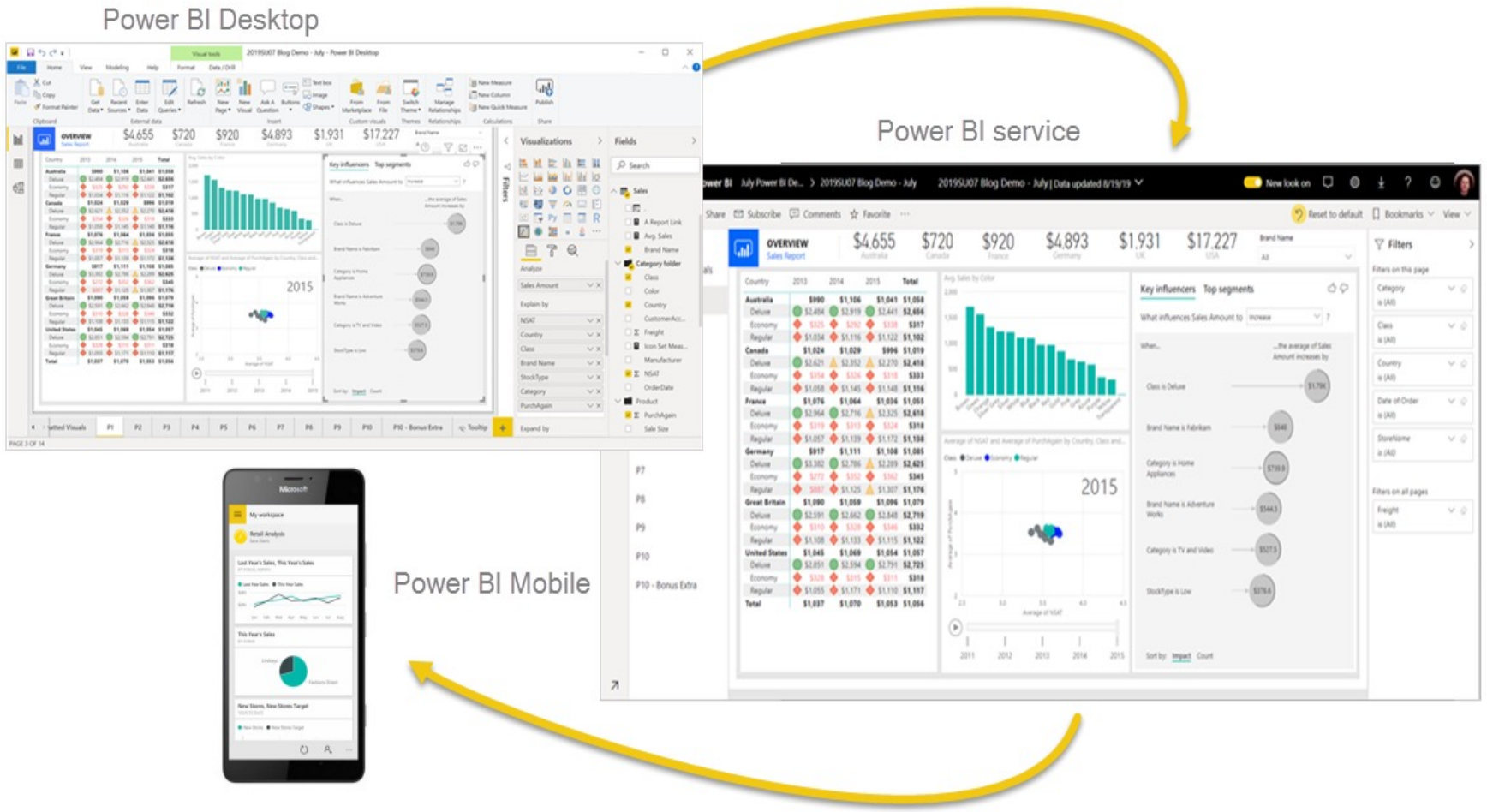
Steps to do **Data Visualization**



DATA VISUALIZATION TOOL

Top 5 BI Tools

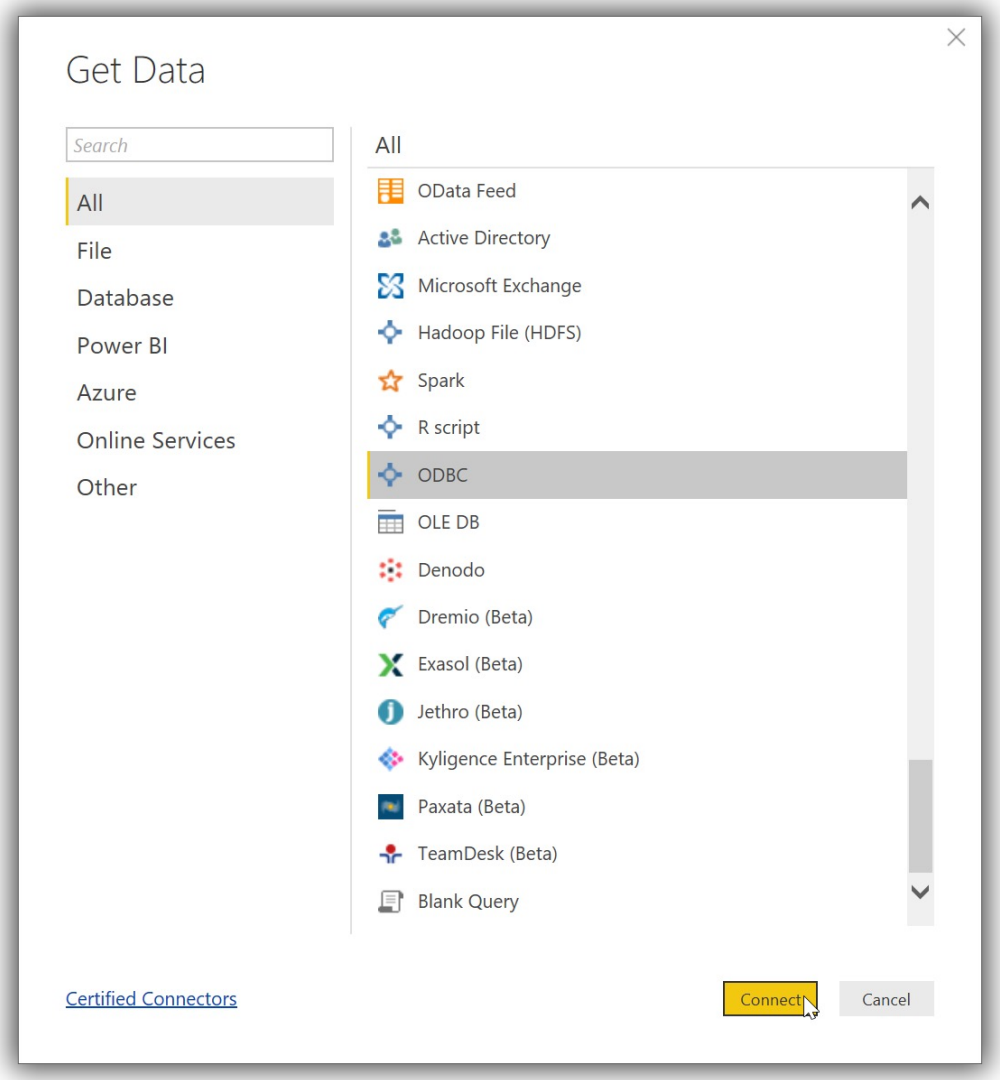
POWER BI



Power BI is a collection of software services, apps, and connectors that work together to turn your unrelated sources of data into coherent, visually immersive, and interactive insights.

Your data might be an Excel spreadsheet, or a collection of cloud-based and on-premises hybrid data warehouses. Power BI lets you easily connect to your data sources, visualize and discover what's important, and share that with anyone or everyone you want.

Power BI Connectors (Connect with Data Source)



1 Extract Data from Source