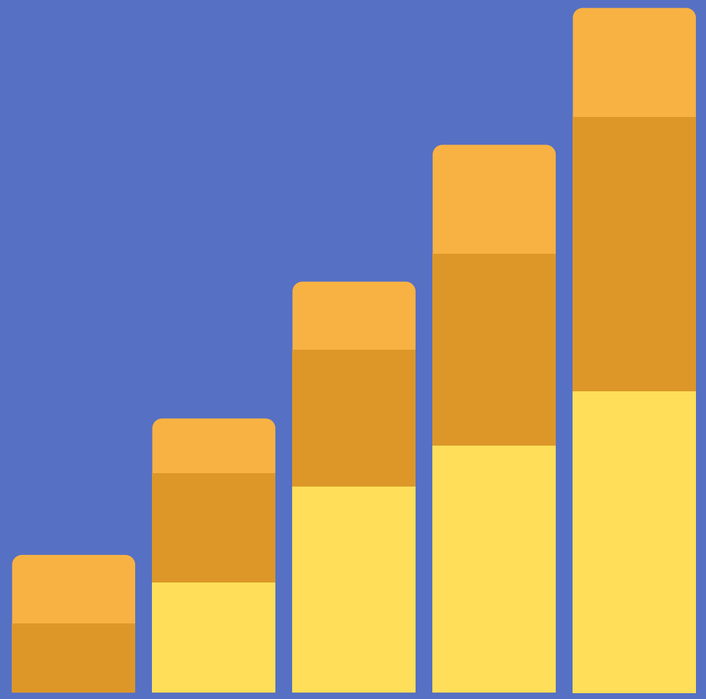


Week #4

Data Visualization

TEAM 3 - DATA SCIENCE A

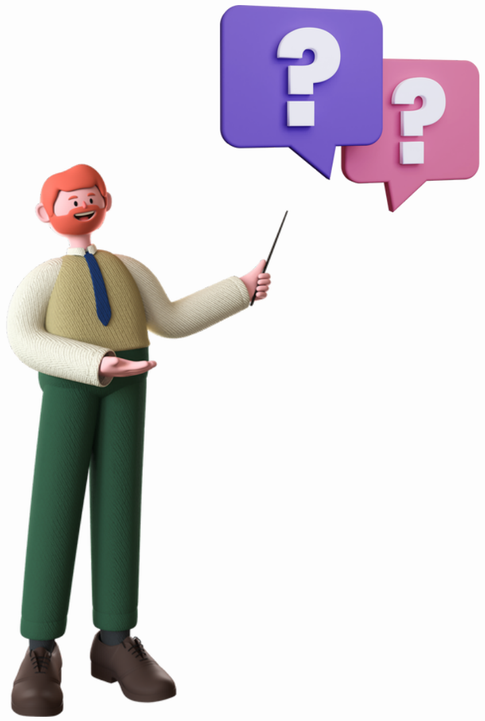
Data Visualization

MAIN TOPIC

- BI(BUSINESS INTELLIGENCE)
- DASHBOARD
- POWER BI & GOOGLE DATA STUDIO

BUSINESS INTELLEGENCE(BI)

BUSINESS INTELLIGENCE (BI)



BI(Business Intellegence) leverages software and services to transform data into actionable insights that inform an organization's strategic and tactical business decisions.

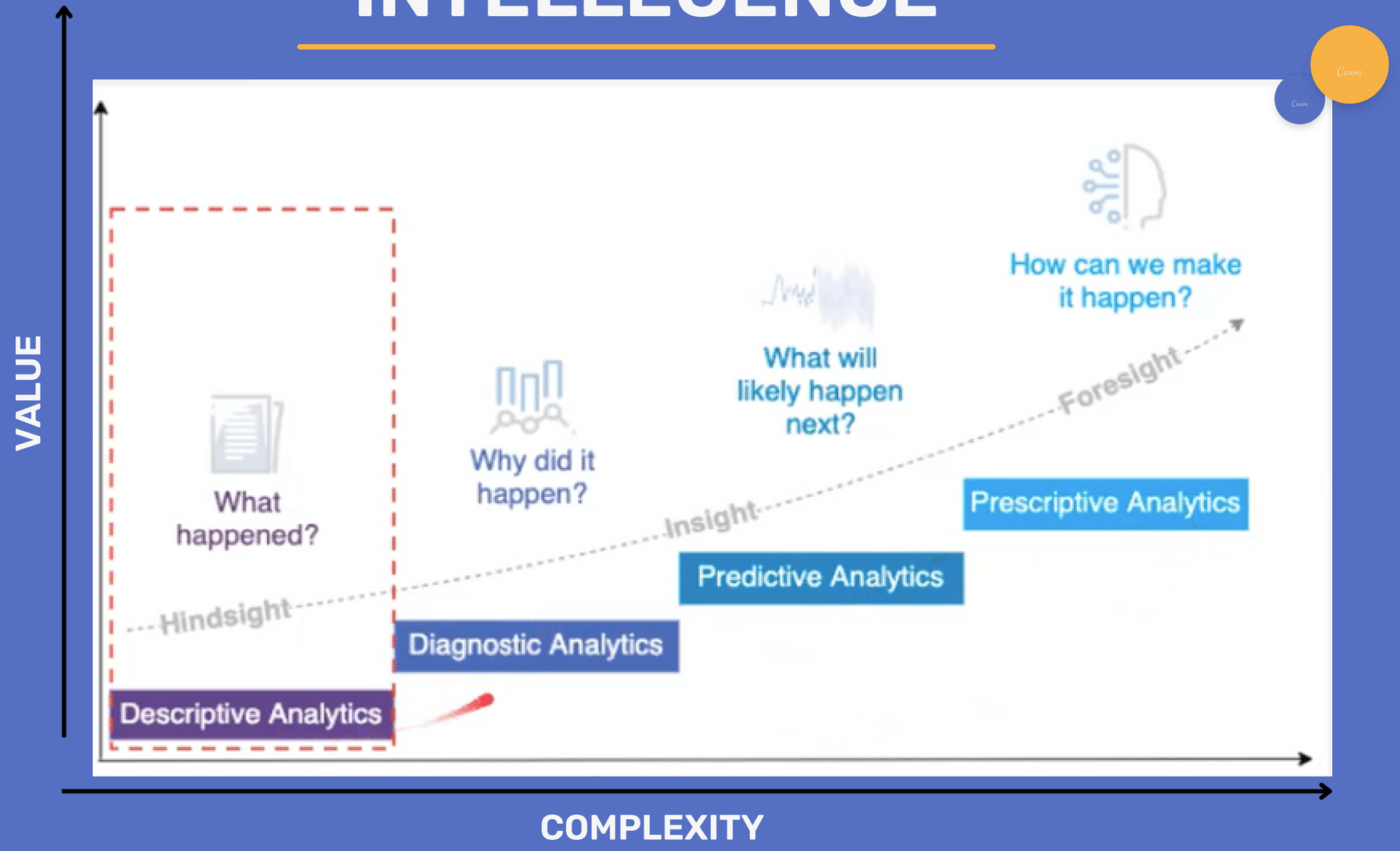
AND

BI as a profession is responsible for managing data retrieval and analysis within an organization. Their duties include organizing data points, communicating between upper management and the IT department and analyzing data to determine a corporation's needs.

Bussines Intelligence Function

- Determination of KPI targets (key performance indicators) according to the data
- Read and interpret data to help determine company decisions
- Get a more planned projection for the long term
- Evaluate trend data in real time

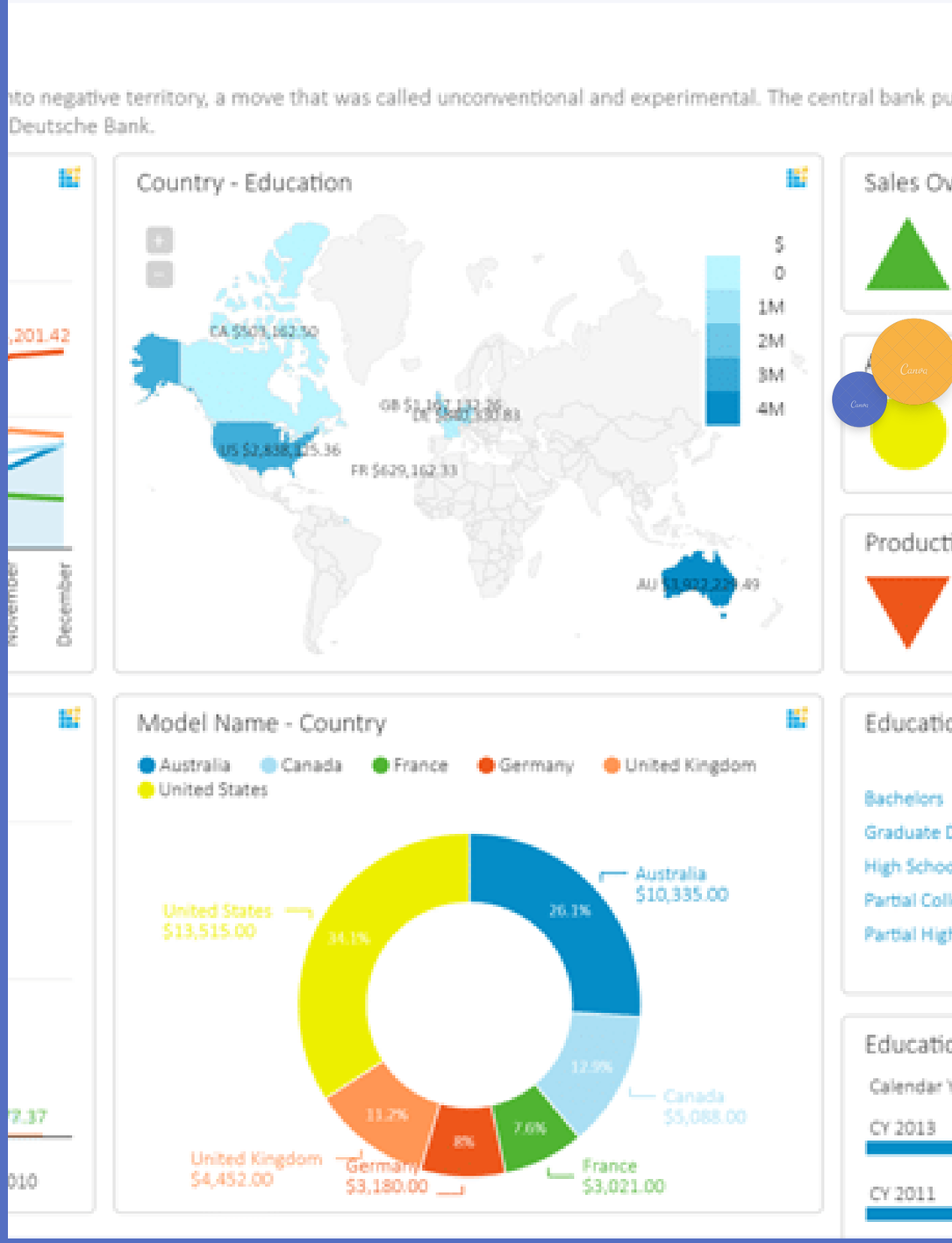
SCOPE BUSINESS INTELLEGENCE



DASHBOARD

DASHBOARD

A dashboard is a type of graphical user interface which often provides at-a-glance views of key performance indicators relevant to a particular objective or business process. In other usage, "dashboard" is another name for "progress report" or "report" and considered a form data visualization.



Dashboard

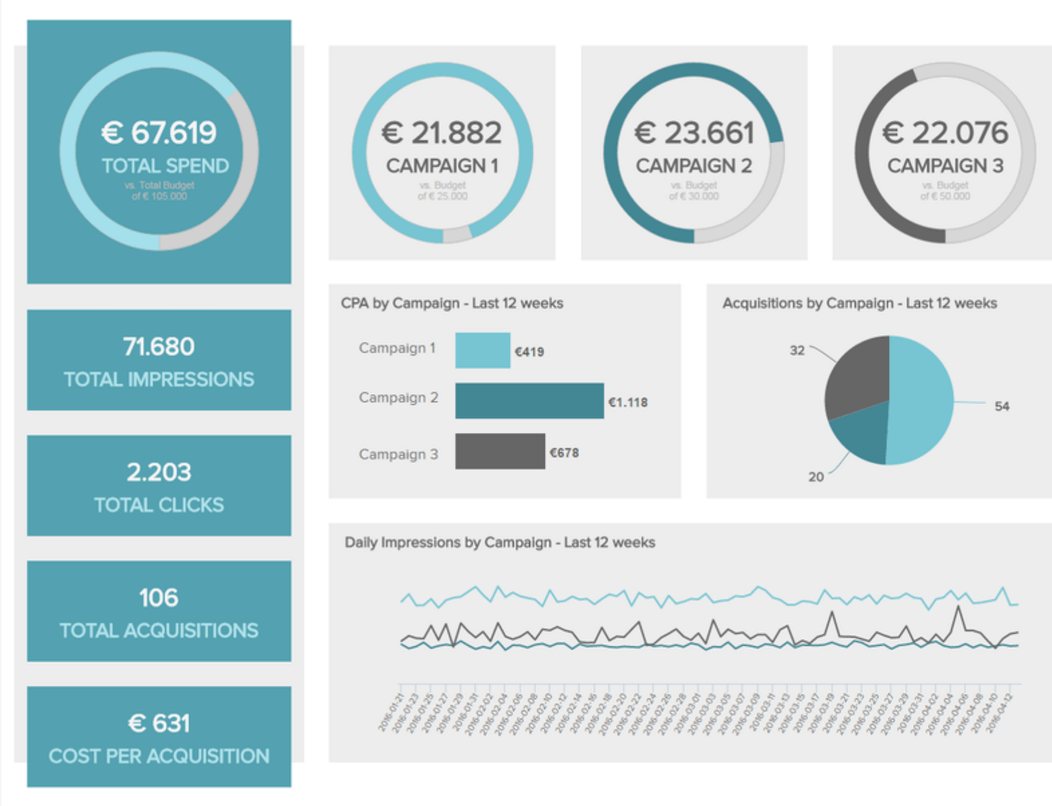
OPERATIONAL DASHBOARD

Operational dashboards answer the question: “What is happening now?” An operational dashboard is used to monitor real-time or transactional data against key metrics and KPIs. Data on operational dashboards updates frequently—even up to the minute!

Operational dashboards are designed to be integrated throughout the course of your daily workflow. Operational dashboards often contain contextual information, too, so users can explore the data and use it in the decision-making process.

Metrics you can track on an operational dashboard

- Website performance metrics like new users or bounce rate
- Follower count or comments across your social media channels
- Return on ad spend to track the effectiveness of your digital advertising dollars



Dashboard

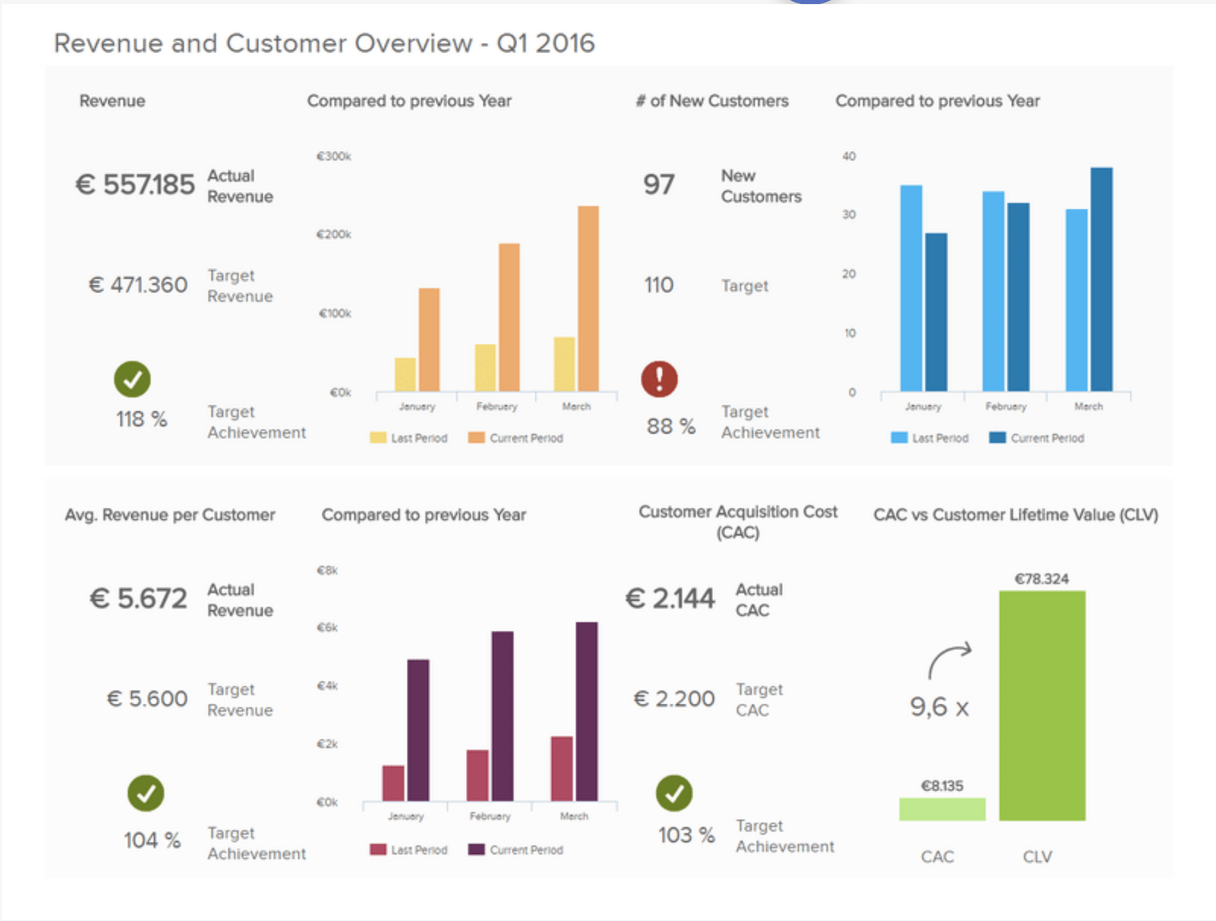
STRATEGIC DASHBOARD

Strategic dashboards are used by executives to monitor the status of KPIs. Strategic dashboard data updates less frequently than the aforementioned operational dashboard.

Strategic dashboards are designed to be viewed once a day to support executives in staying on top of organizational KPIs. Oftentimes, strategic dashboards summarize performance over a period of time (month, quarter, year).

Metrics you can track on a strategic dashboard

- Monthly, quarterly, or yearly fiscal performance
- Account and MRR growth rate
- Earnings before interest, tax, depreciation, and amortization (otherwise known as



Dashboard

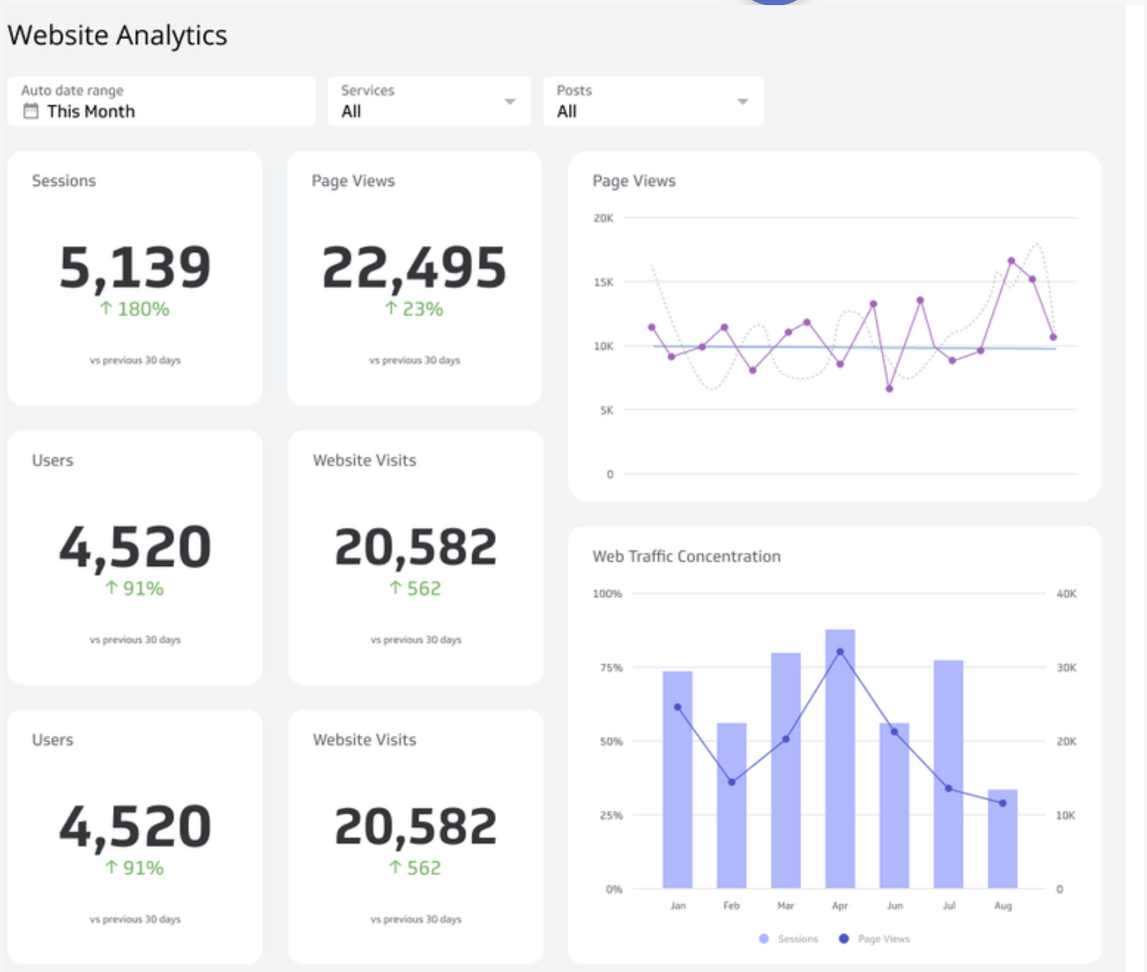
ANALYTICAL DASHBOARD

An analytics dashboard is a highly visual display of data used to monitor conditions or rapidly facilitate understanding. They allow executives to gain an at-a-glance understanding of vast amounts of data by leveraging the human brain's cognitive preference for visual information.

There is some popular dashboard analytics such as google analytics,clever tap, moengange, etc.

Metrics you can track on an analytical dashboard

- Annual contract value to track the dollar amount an average customer contract is worth
- Measure your company spending habits with the Bessemer Efficiency Score
- Understand the increase in daily active users over a period time

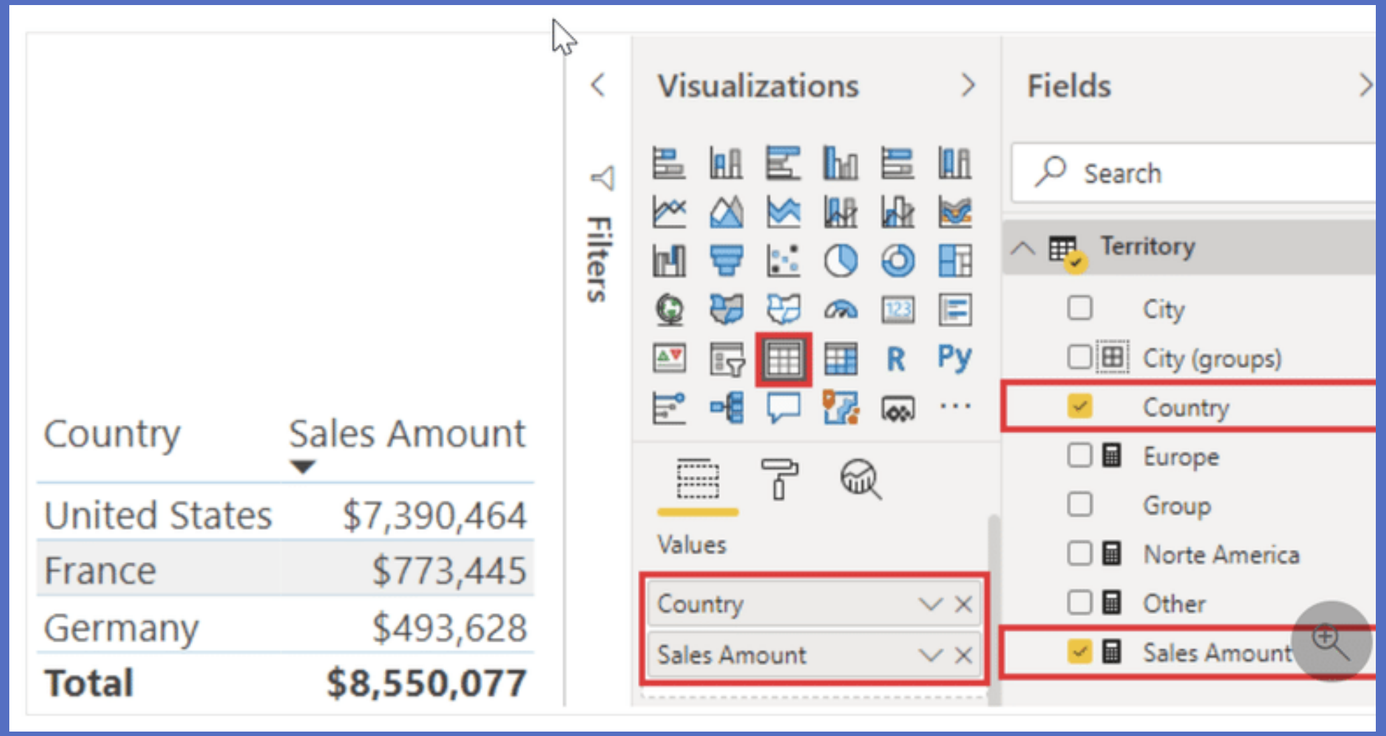


ADVANTAGES OF USING BI TOOLS

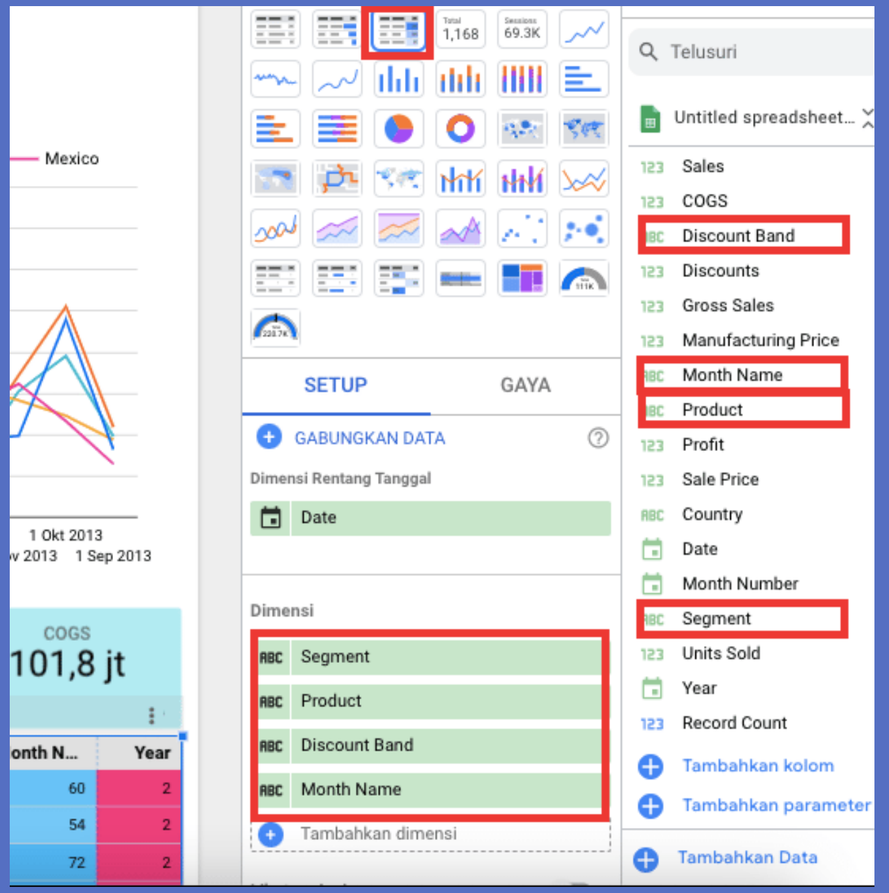
POWER BI & GOOGLE DATA STUDIO

Table and Matrix visualizations

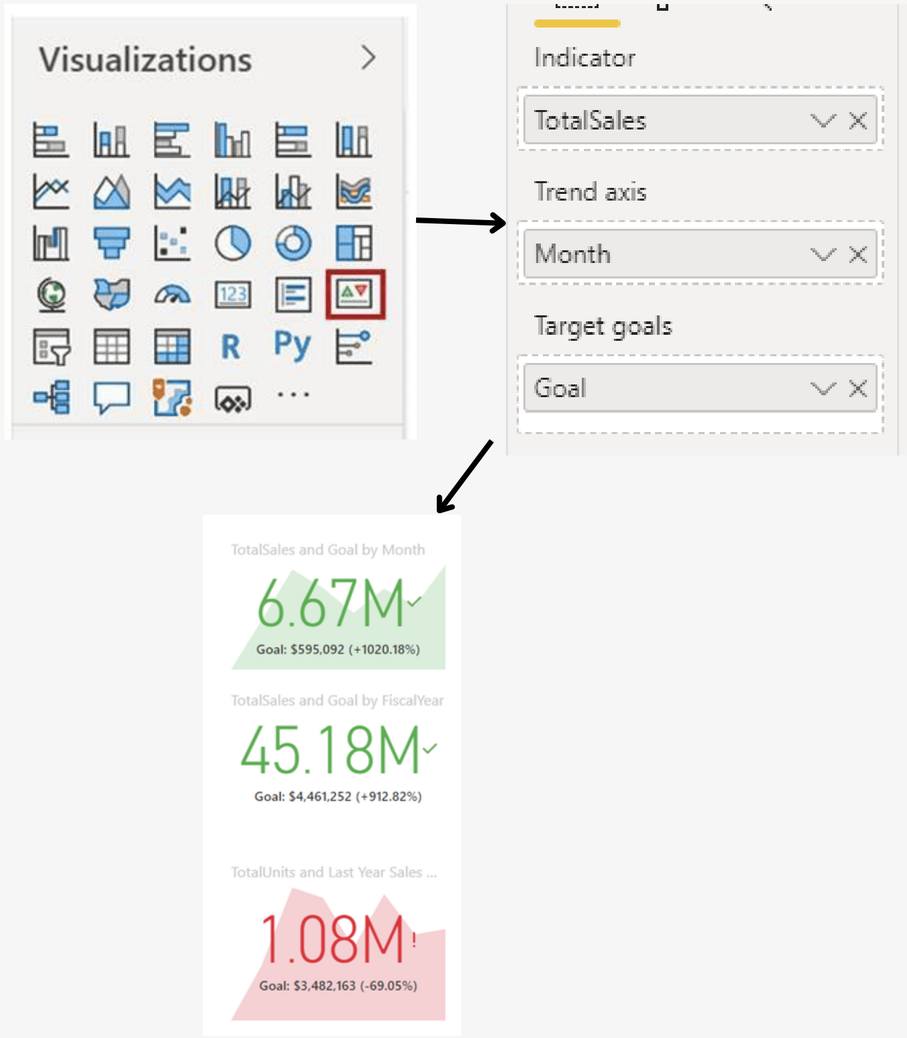
Power BI



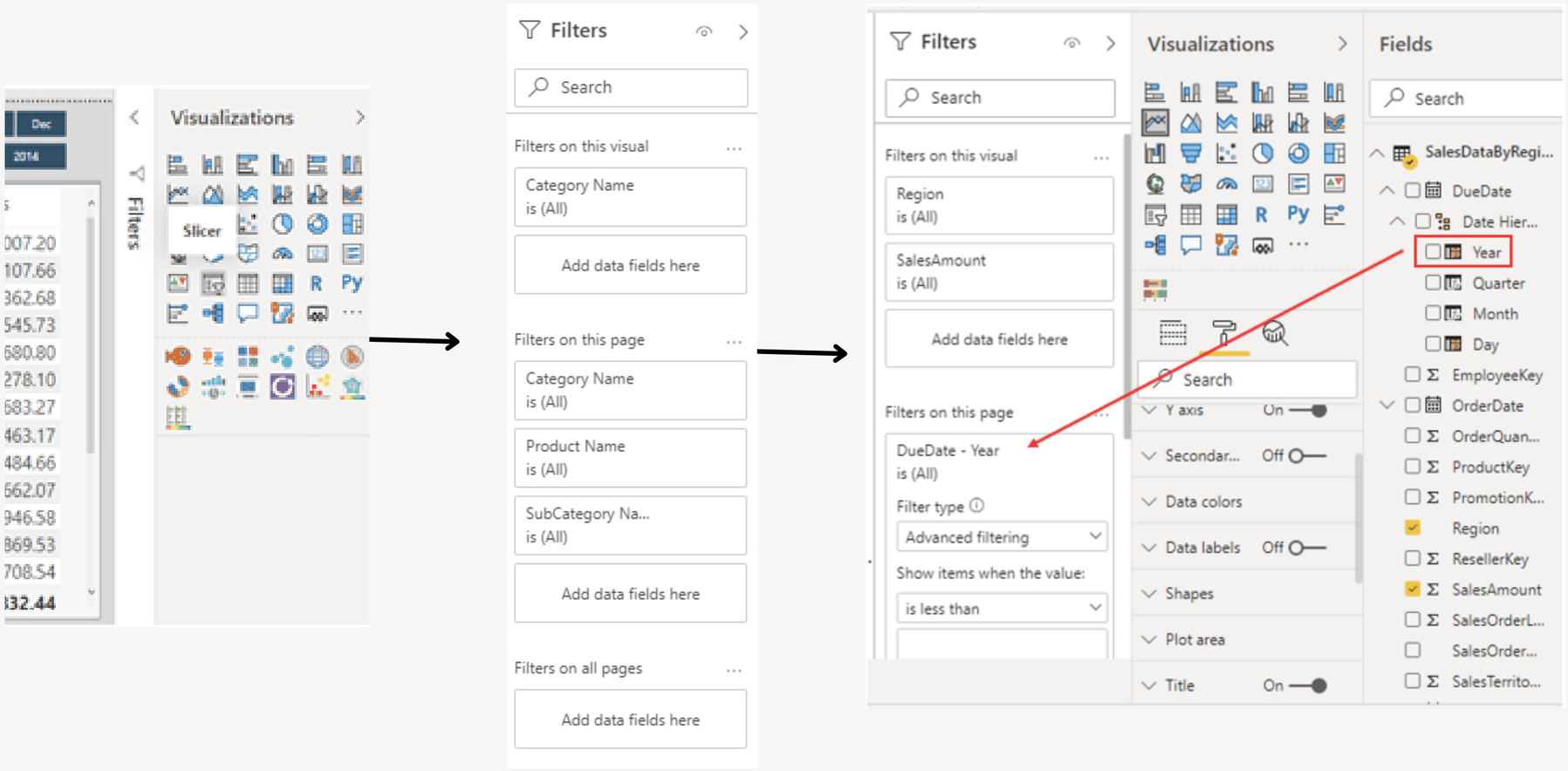
Google Data Studio



Work with key performance indicators



SLICER


Visualizations
Filters
Slicer
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Search
Filters on this visual
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SalesAmount
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DueDate - Year
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Filter type
Advanced filtering
Show items when the value:
is less than
Visualizations
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Y axis
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ProductKey
PromotionK...
Region
ResellerKey
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Identify common Power BI components

- Identify and describe uses for visualization controls including pie, bar, donut, and scatter plots and KPIs
- Describe types of filters
- Describe the Power BI Desktop Reports, Data, and Model tabs
- Describe uses for custom visuals including charts or controls
- Compare and contrast dashboards and workspaces
- Compare and contrast Power BI Desktop and Power BI Service
- Compare and contrast dashboards, workspaces, and reports.

Connect to and consume data

- Combine multiple data sources
- Clean and transform data
- Describe and implement aggregate functions
- Identify available types of data sources including Microsoft Excel
- Describe use cases for shared datasets and template apps and how to consume each

Build a basic dashboard using Power BI

- Design a Power BI dashboard
- Design data layout and mapping
- Publish and share reports and dashboards

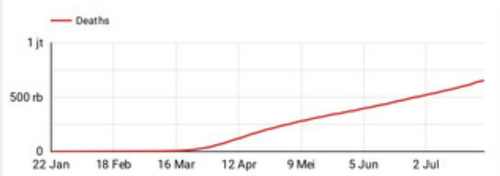
Our Dashboard Project

COVID-19 DASHBOARD

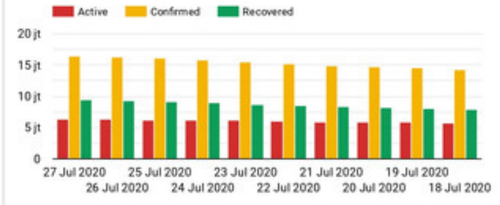
Pilih rentang tanggal | Country/Region | WHO Region | Province/State

Active	Confirmed	Recovered	Deaths
396,7 jt	828,5 jt	388,4 jt	43,4 jt

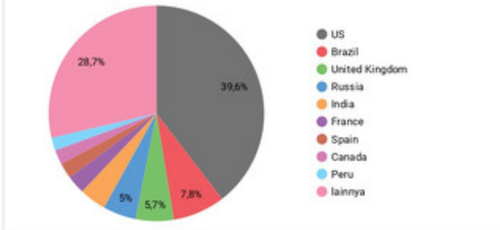
DEATH BY DATE



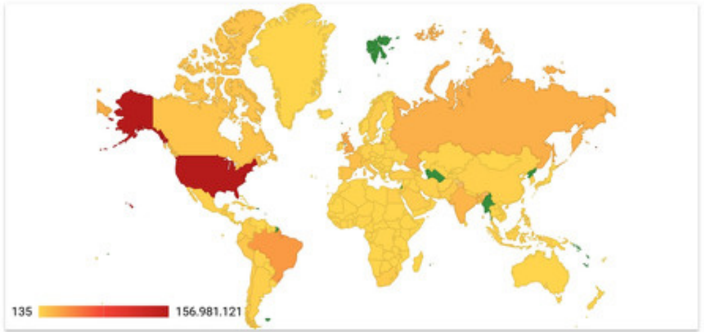
ACTIVE,CONFIRMED,RECOVERED BY DATE



ACTIVE BY COUNTRY



ACTIVE MAP



COVID-19 DETAILED TABLE

	Country/Region	Active	Confirmed	Deaths	Recovered
1.	Afghanistan	1.089.052	1.936.390	49.098	798.240
2.	Albania	72.117	196.702	5.708	118.877
3.	Algeria	345.886	1.179.755	77.972	755.897
4.	Andorra	19.907	94.404	5.423	69.074
5.	Angola	15.011	22.662	1.078	6.573
6.	Antigua and Barbuda	1.561	4.487	326	2.600
7.	Argentina	2.672.885	4.450.658	97.749	1.680.024
8.	Armenia	702.602	1.587.173	27.089	857.482
9.	Australia	236.932	960.247	11.387	711.928
10.	Austria	325.216	2.034.986	71.390	1.638.380
11.	Azerbaijan	417.033	1.134.717	14.282	703.402
12.	Bahamas	4.850	12.100	1.203	6.047
13.	Bahrain	415.304	1.755.206	5.115	1.334.787

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THANK YOU!

Kampus Merdeka x MyEduSolve

Kelompok 3 - Data Science A