

Visualization

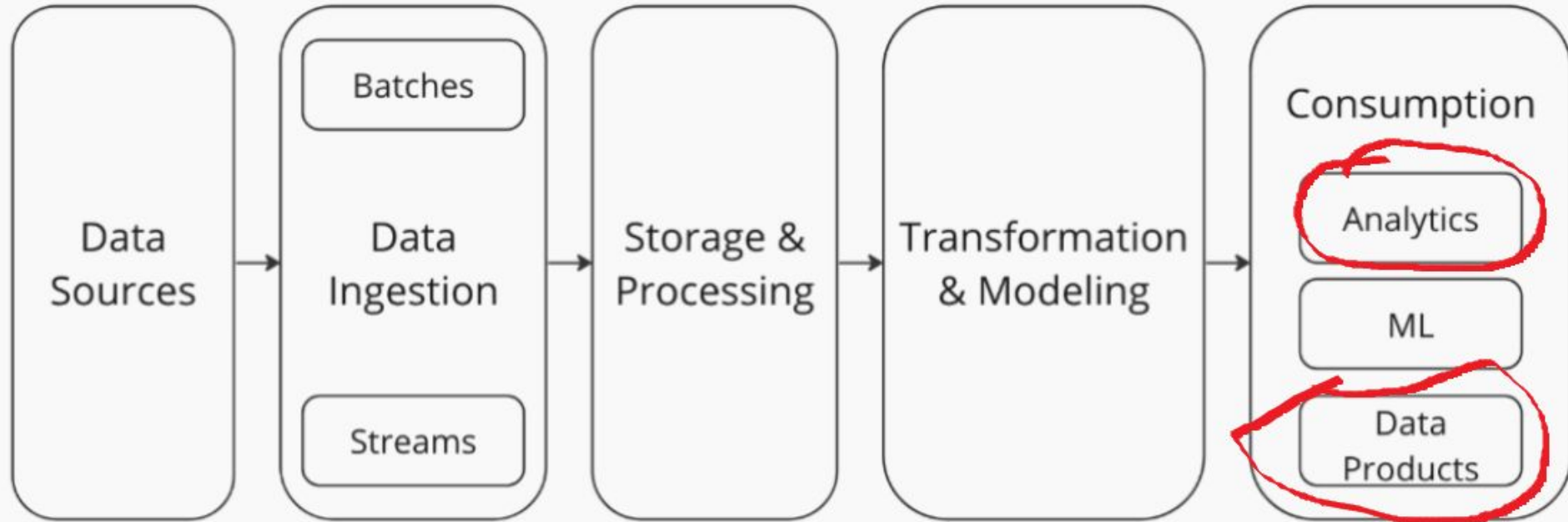
For grade G:

- Build a data platform that takes in data from the given public API and processes data for consumption by the ML model for future training or analysis. The platform must have schedules for the pipelines as well as possibility to monitor and logging.
- Deploy the given ML model to the cloud for use by end user.

For grade VG:

- Use any data API of your choice to gain insight and train a new ML model to solve a problem you identified.
- Build a data platform that takes in data from the given public API and processes data for consumption by the ML model for future training or analysis. Create analysis dashboard from this data. The platform must have schedules for the pipelines as well as possibility to monitor and logging.
- Deploy the given ML model to the cloud for use by end user.

Consumption layer



Analytics

- **Purpose:** Generate insights for humans.
- **Examples:** Dashboards, reports, ad-hoc queries.
- **Output:** Charts, KPIs, summaries that inform decisions.
- **Consumers:** Business stakeholders, analysts, managers.
- **Value:** *“Helps people understand what is happening.”*

Data Products

Purpose: Deliver data or model results to other systems (or users) for direct use.

Examples:

- A weather prediction API serving live forecasts
- A recommendation engine's output consumed by a website
- A curated, cleaned dataset published for reuse

Output: Machine-readable artifacts APIs, feature stores, tables, alerts.

Consumers: Applications, downstream ML models, sometimes users (indirectly).

Value: *"Enables automated action, other systems can rely on it."*

What can you use to visualize your data?

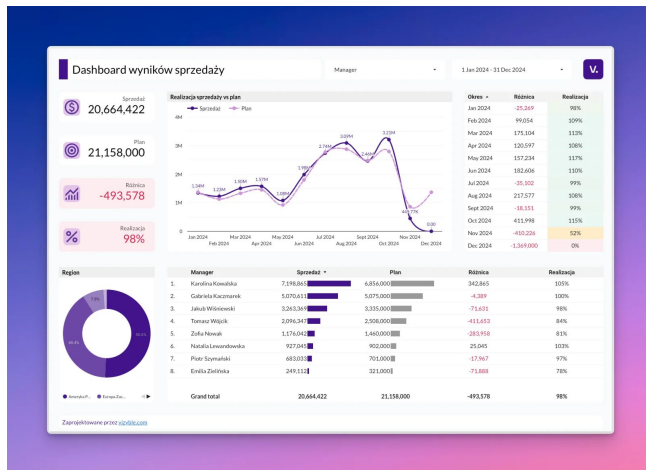
The choice revolves around

- dashboards
- interactive apps



Dashboards

- **Purpose:** Show KPIs, trends, monitoring at a glance
- **Audience:** Business users, stakeholders
- **Examples:** Looker Studio, Power BI, Metabase
- **Strengths:**
 - Automated refresh
 - Easy sharing
 - Great for ongoing monitoring





Interactive Apps

- **Purpose:** Explore model outputs, “what-if” analysis
- **Audience:** Developers, data scientists, product teams
- **Examples:** Streamlit, Gradio, Dash, custom built flask/react apps
- **Strengths:**
 - Live model predictions
 - Custom UI and logic
 - Great for demos and experimentation



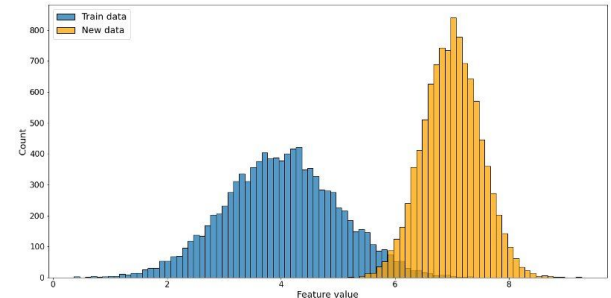
Why visualization matter

Makes complex results **understandable**

Enables **better decisions** by stakeholders

Builds **trust** in the model

Surfaces **issues early** (data drift, model degradation)



Things to consider

- The project does not fall with how well you chose to visualize the data
- Less is more.