

Data Engineering introduction

Build your first data pipeline

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Baptiste PICARD - 28/06/2025

A short introduction

Requirements and what you can expect from this course ?

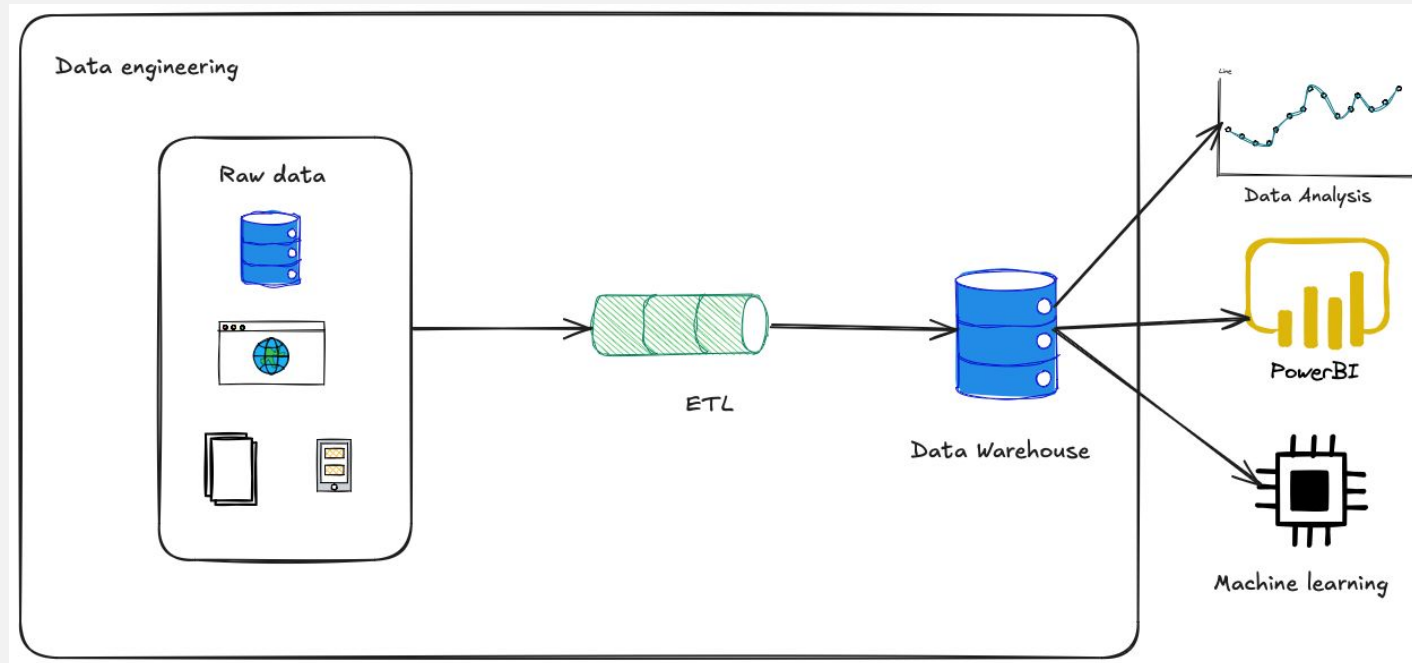
Agenda

1. Why Data Engineering matters?
2. What is Data Engineering?
3. What is a Data Pipeline
4. Data pipeline example - country population
5. Tools and best practices
6. Conclusion

Why Data Engineering matters?

What is Data Engineering?

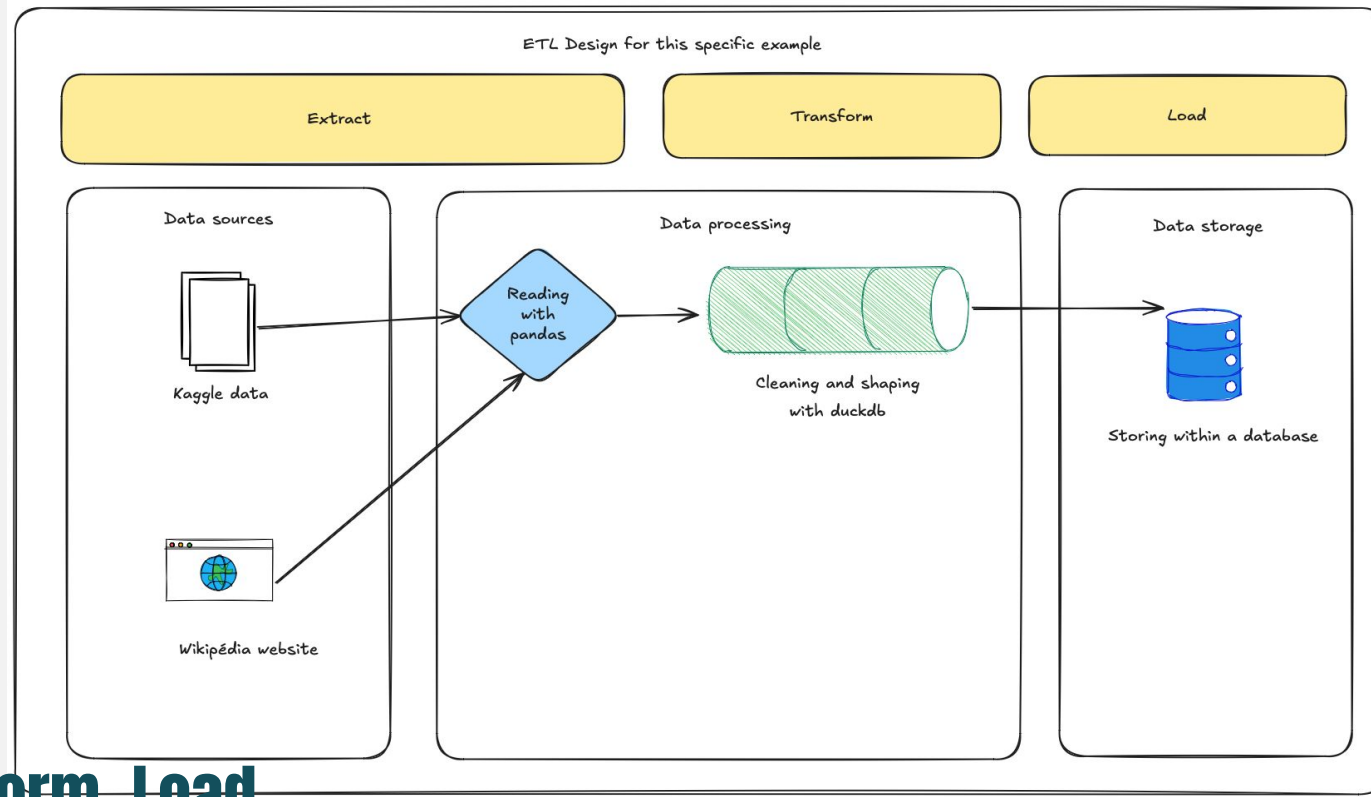
Where data engineering is spotted



data engineering vs data analytics

What is a data pipeline?

How to design an ETL?

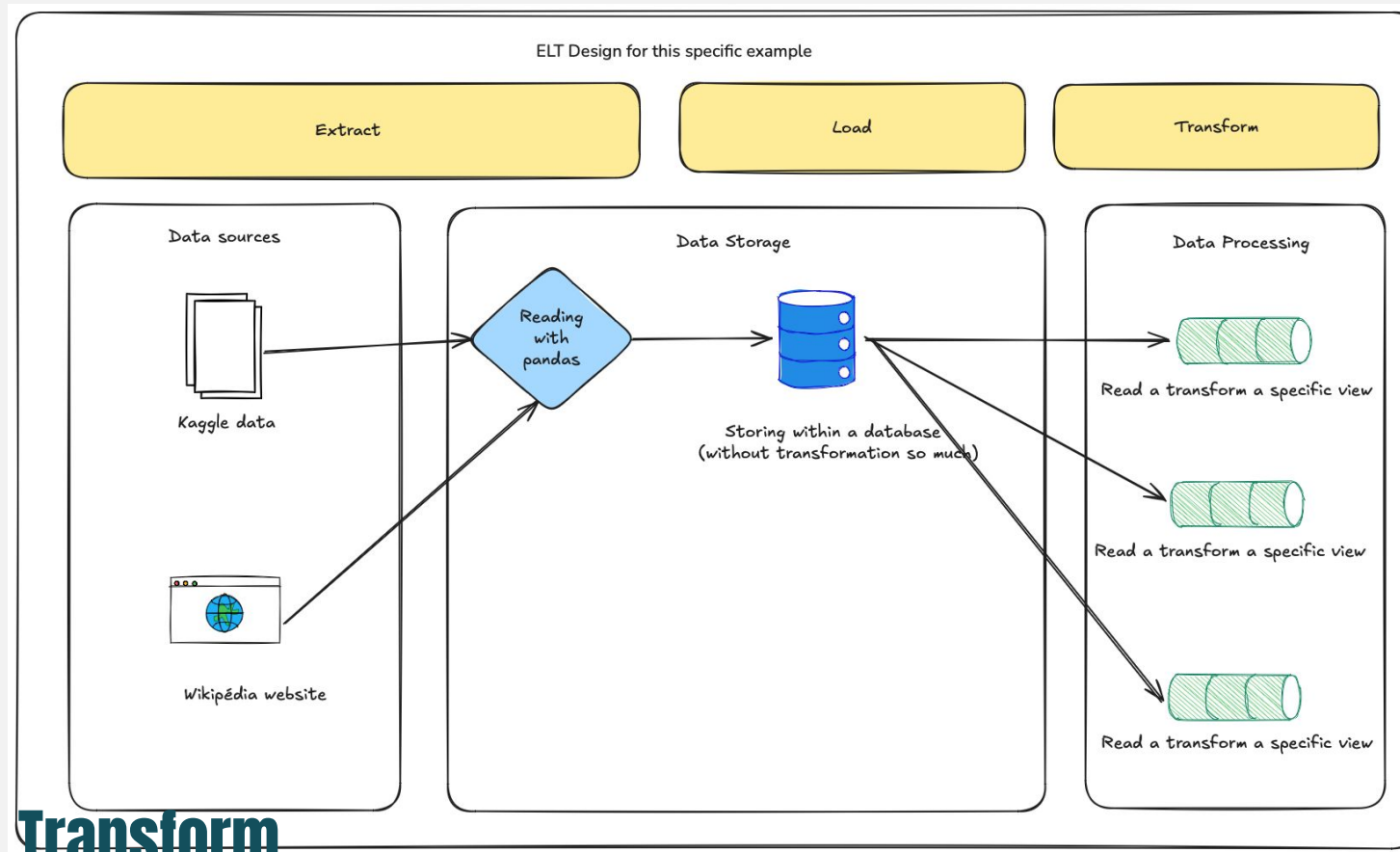


ETL: Extract, Transform, Load

ETL design schema

What is the difference with ELT

ELT: Extract, Load, Transform



ELT design schema

Data pipeline example: Country population data

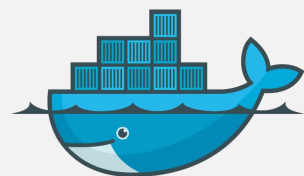
<https://github.com/BaptPicxDev/DataEng-teaching-pipeline/tree/playground>

Important tools and best practices



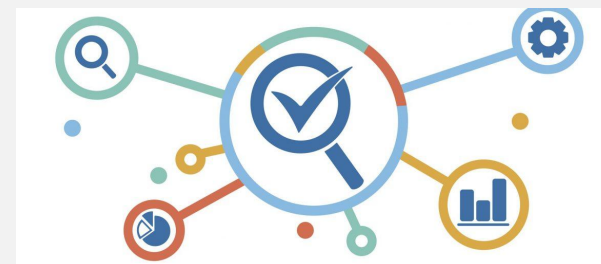
Apache
Airflow

Orchestration



docker

Container



Data/Code quality



Big data solutions

What is a data pipeline?



Thank you!

Do you have some questions?