(Big) Data Engineering In Depth
From Beginner to Professional

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The Definitive Guide to Big Data Engineering Tasks

Videos classification

Watching Method / Audience	Computer	Mobile/Tablet	Just listening
Developer			●
DevOps			●
Business			●

Table: Video classification
The green circle ● means short video.
The blue circle ● means medium video.
The red circle ● means long video

Chapter: Introduction To Data Management and Data Warehouse

Chapter Objectives

- Be familiar with data management life-cycle.

- Understand the data abstraction and the data layer.

- Motivation to DWH.

- What are the different types of DWH?

- Usecases for DWH. How is it different from the operational DB?

- Explain the data Encoding and Formats.

- Show what the challenges of building a DWH are?

- What are the data modeling and its design?

Section: Data Management

Data Management

- Data are a product.

- Data product has a life-cycle as following (simplified):
    - **Question**, Idea, or service.

    - **Identify** the source of information and the data type.

    - **Document** all details regarding the data including quality, security, efficiency, and access (consideration during the cycle).

    - Delivery automation (Tools and Process). AKA **DevOps** cycle.

    - Data Architecture (model design and rules).

    - **Extraction**, **Transformation**, and **Loading** Process.

    - Business Intelligence (**BI**) or data discovery (continues process).

    - **Integration** and publishing.

    - Data retention or **archiving** process
      ✍ ⊙ (Hot or Cold storage).

Data Management Life-Cycle