

# (Big) Data Engineering In Depth


## From Beginner to Professional

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The Definitive Guide to Big Data Engineering Tasks

## Sub-Section: Use Cases of Operational DB vs DWH

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  - CRM team can report their sales and customer activities from their database.
  - Product owner can take a decision based on their system backend reports.



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  - The decision from the DWH is a **global and strategical decision.**
  - If the company needs to build a machine learning model which needs data from different sources. They need to load the data from a centralized database rather than read each source alone.

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The Full picture required a DWH. However, we still need the other operational databases for product development perspective.

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- Why do we need the ODS?
- How does it fit in our system?

## Use case (ODS)

**XTec** has a call center system which handles the customer inquiries.

This system requires the some data related to usage, customer information, billing details to be calculated and accumulated in **real-time** to be able to give the customer the right answer for his inquires.

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  - It needs specific information from different source systems.
  - It requires to track the source system database changes or update in real-time.
  - It's functionality is based on the aggregate data not the transactions   (It needs the total outgoing calls till time or it needs the total charging amounts from prepaid or the available limits from billing if it is postpaid).

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- ODS uses the real-time aggregations to support the online systems from different source systems.