

# (Big) Data Engineering In Depth


## From Beginner to Professional

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 Garage Education

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The Definitive Guide to Big Data Engineering Tasks

# Videos classification

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

**Table:** Video classification

The green circle ● means short video.

The blue circle ● means medium video.

The red circle ● means long video

- **Physical level (Internal):**

- Lowest level.
- Describes how data is stored.
- Describes the data structure.
- It allows you to modify the lowest level (Physical part) without any change in the logical schema. These change could be
  - Using a new storage device
  - Change the structure of the data used for storage
  - Change the file type or use a different storage structure
  - Change the access method
  - Modify indexes
  - Change the compression algorithm or hashing technique.

## Example

- Database contains product information.
- Physical layer describes
  - Storage mechanism and the blocks (bytes, gigabytes, terabytes, etc.).
  - The amount of memory used.
  - Usually this layer abstracted from the programmers.