

Schema in Database

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"Schema" → logical representation of database

→ For ex. in RDBMS, we represent database in form of tables (scheme)

→ ex. if a student database is to be created

Then

Roll No	Name	Major
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This outline/model is called schema

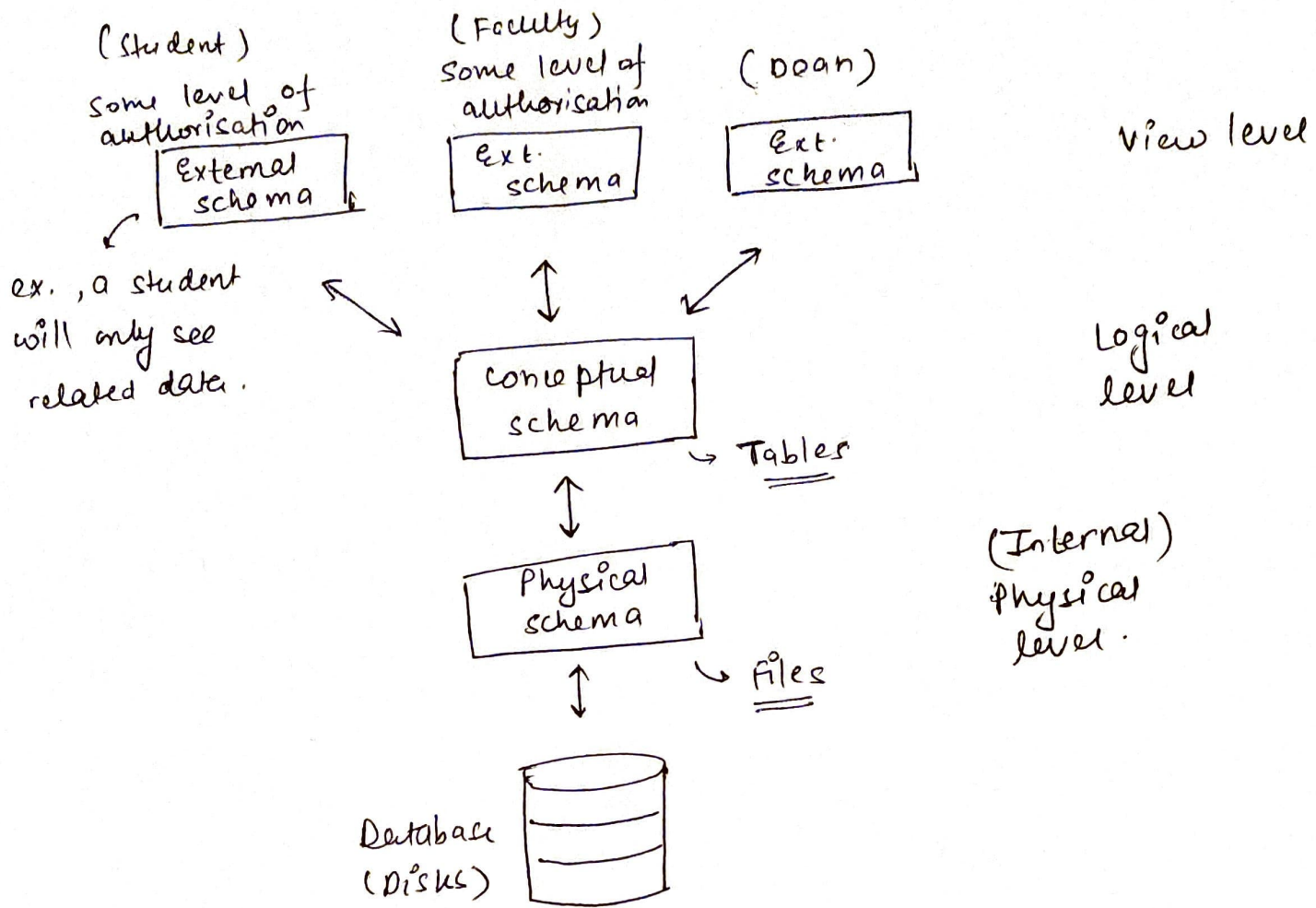
Actually data might not be stored in a similar way but our schema/outline for our database is this

→ Schema can be implemented using SQL.

→ DDL (Data Definition language) commands in SQL are used to implement schema.

Three Schema Architecture

(structure) → outline / structure of data



→ Data independence - Users and data should not interact directly, or, users should not know where is data located.

→ 3 schema architecture promotes data independence.
eg. gmail. - user doesn't know where mails are actually stored

→ conceptual schema → what is the structure of data?
 what are the columns inside student's data?

Information about tables and relationships between those tables is included in conceptual schema.

→ Physical schema → Information about where the data is actually kept / stored. All the data storage is decided in this schema.
(Looked after by Database Administrators)

→ Actual data is stored in form of files, but external user sees it in table format.

→ So, conceptual schema has structure of tables, physical schema has structure of files in which data is actually stored.