

Database Technology

Topic 1: Fundamental Concepts

Olaf Hartig

olaf.hartig@liu.se

Quizzes

Databases vs. File-based Data Management

Quiz (The Database Approach)

Which of these statements is *not* correct?

- 1) In the database approach to data management, maintenance of data and metadata is easier.
- 2) In the database approach, the data definitions or metadata are stored in the applications accessing the data.
- 3) In the database approach, applications don't have their own data files; instead, all applications access the same version of the data by interfacing with the DBMS.
- 4) In a file approach to data management, different applications could be using older and newer versions of the same data.

Quizzes

Database Languages

Quiz (Database Languages)

Which of these statements is *not* correct?

- 1) In a file-based approach to data management, every application has its own query and access procedures, even if they wanted to access the same data.
- 2) SQL is a database language to interact with DBMSs without having to write a substantial amount of programming code.
- 3) SQL is a database language in which users specify how to access and retrieve the data.
- 4) The database language SQL allows different applications to access different subsets of the data necessary for each application.

Quizzes

Three-layer architecture,
data independence, and
data models

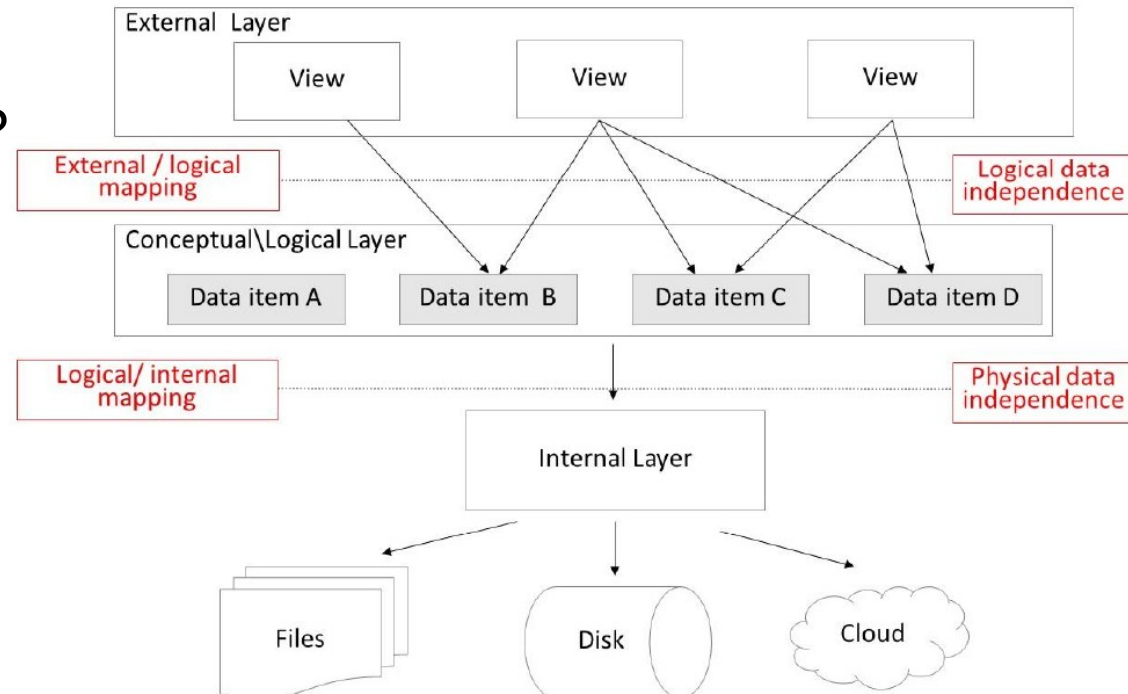
Quiz

Statement A: Physical data independence implies that neither the applications, nor the views or logical data schema must be changed when changes are made to the data storage specifications in the internal data model.

Statement B: Logical data independence implies that software applications are minimally affected by changes in the conceptual or logical schema.

Which statement(s) is/are right?

- 1) Neither A nor B
- 2) Only B
- 3) Only A
- 4) A and B



Quiz (Data Models)

Which of these statements is *not* correct?

- 1) A logical data model represents the conceptual data model translated to a specific implementation environment.
- 2) In a conceptual data model, the data requirements from the business should be captured and modeled.
- 3) Examples of implementations of logical data models are hierarchical, CODASYL, relational or object-oriented models.
- 4) A conceptual data model is implementation dependent.

Quiz (Database State and Catalog)

Which of these statements *is correct*?

- 1) The database is stored in the catalog.
- 2) The database state specifies the various data items, their characteristics and relationships and is specified during the database design.
- 3) The database state changes when data is updated or removed.
- 4) The database state represents the data in the database when the database is first created.

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