

File-based System Vs DBMS

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- Chapter 1: Database System Concept, 6th Ed. Silberschatz, Korth, Sudarshan
- Chapter 1: Database System, A practical approach to Design, Implimentation and Management, Thomas Connlly, Corolyn Begg

Basic Operations on a database

- Data insertion
- Data retrieval
- Data update
- Data delete

Basic Operations on a database

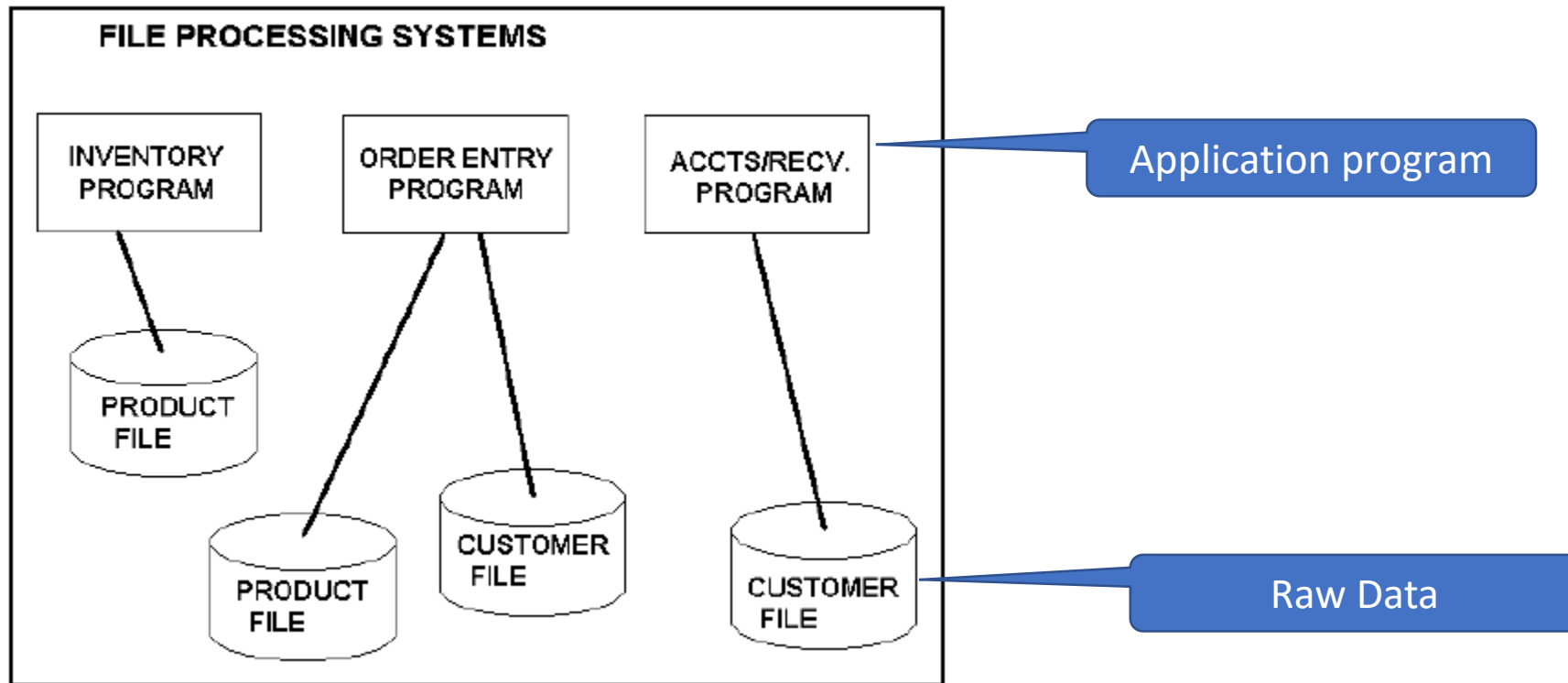
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 - Can't we write **file-based systems** to create databases capable of performing these operations

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- What are file-based systems/file processing system?
 - What is DBMS?

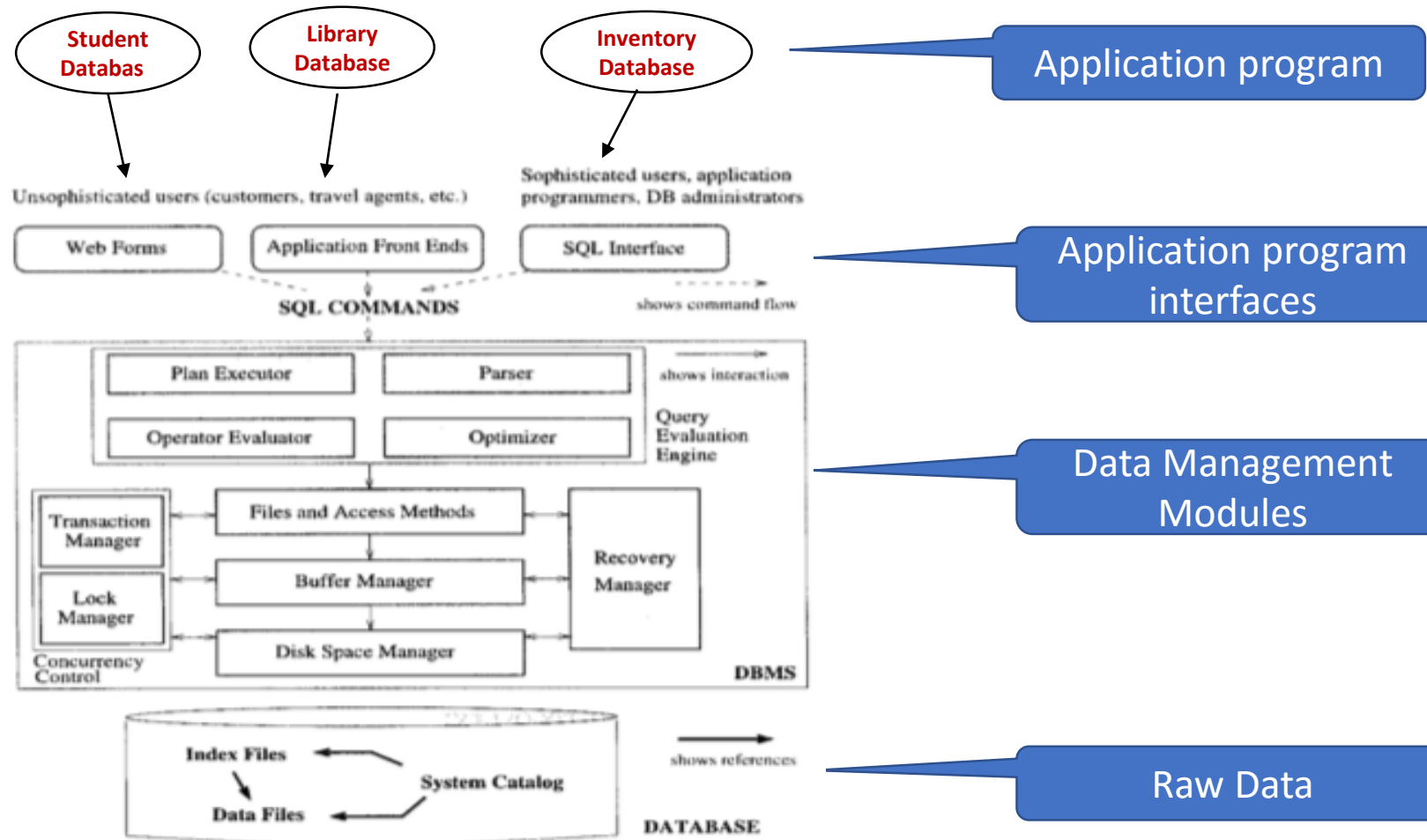
File-based System?

A collection of application programs that perform services for the end-users, such as the production of reports. Each program defines and manages its own data.



Database Management System?

A software system that enables users to define, create, maintain, and control access to the database.



Some issues to be considered while designing a database

- Data redundancy and data inconsistency
- Difficult in accessing data
- Data isolation
- Data Dependency
- Incompatible file format
- Integrity problem
- Atomicity problem
- Concurrent access
- Security problem

Can a file-based system handle the following?

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- Difficult in accessing data
- Data isolation
- Data Dependency
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