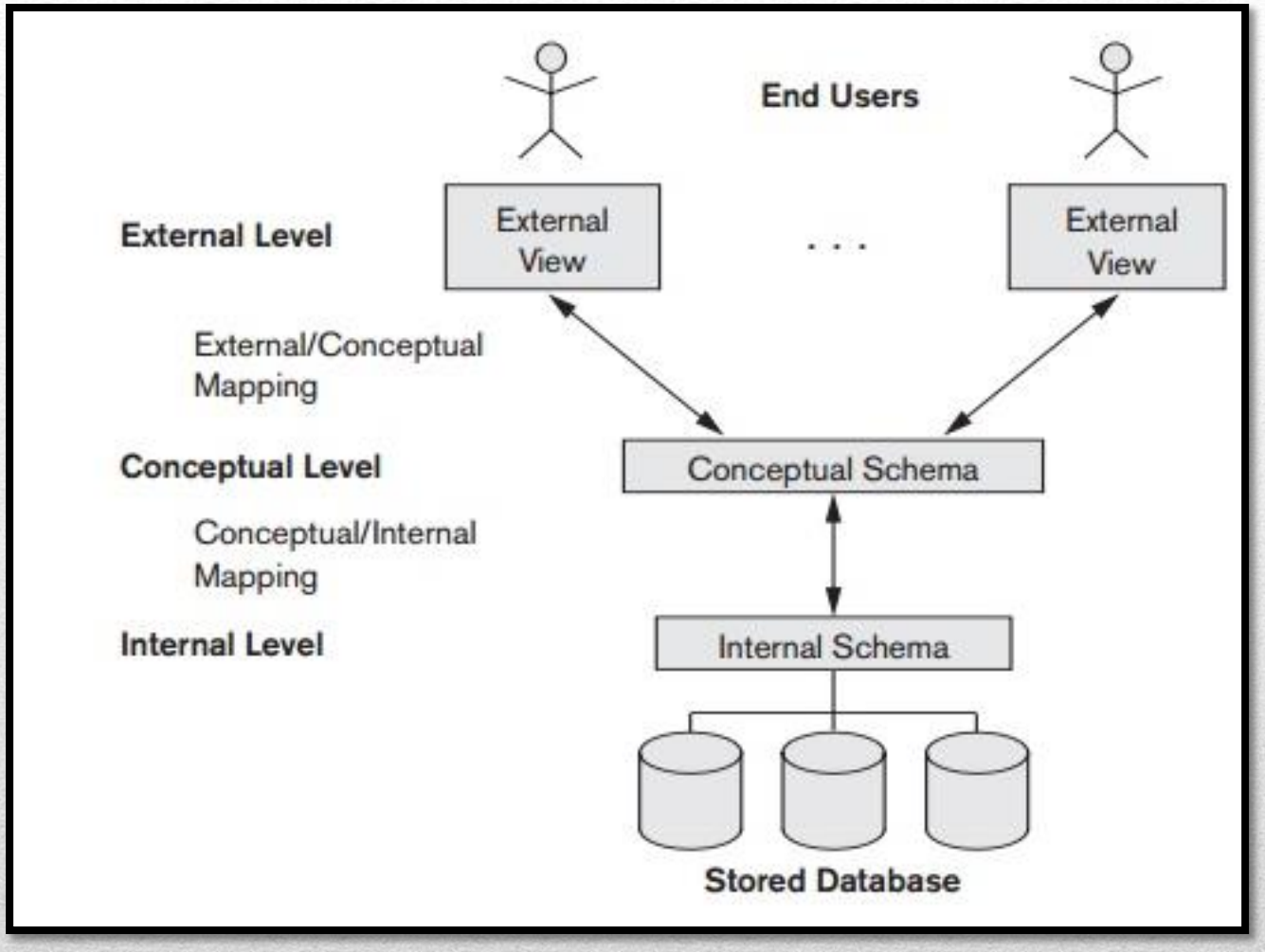


THREE Scheme Architecture of DBMS

Internal Level

- The **physical level** representation of the database in the computer.
- Describes how data is stored in the database to covers physical implementation of database to achieve optimal performance and storage space utilization

Internal Level

- Concern in :
  - Storage allocation for data and indexes
  - Record description for storage
  - Record placement
  - Data compression & encryption techniques

Conceptual Level

- The community views of database **(Logical Level).**
- Describe what data is stored and the relationships among the data.
- Contains the logical structure of the entire database seen by the Database Administrator (DBA).

Conceptual Level

- Hide physical storage structures and concentrate on describing :
  - All entities, attributes and their relationship
  - Constraints on data
  - Meaning of data
  - Security and integrity

External Level

- The **user's view** of the database.
- Describe the part of the database of the database that particular user group interested and hide the rest of database from the user group.
- **Example** : Lecturer's view of CIDOS is different from Student's view.

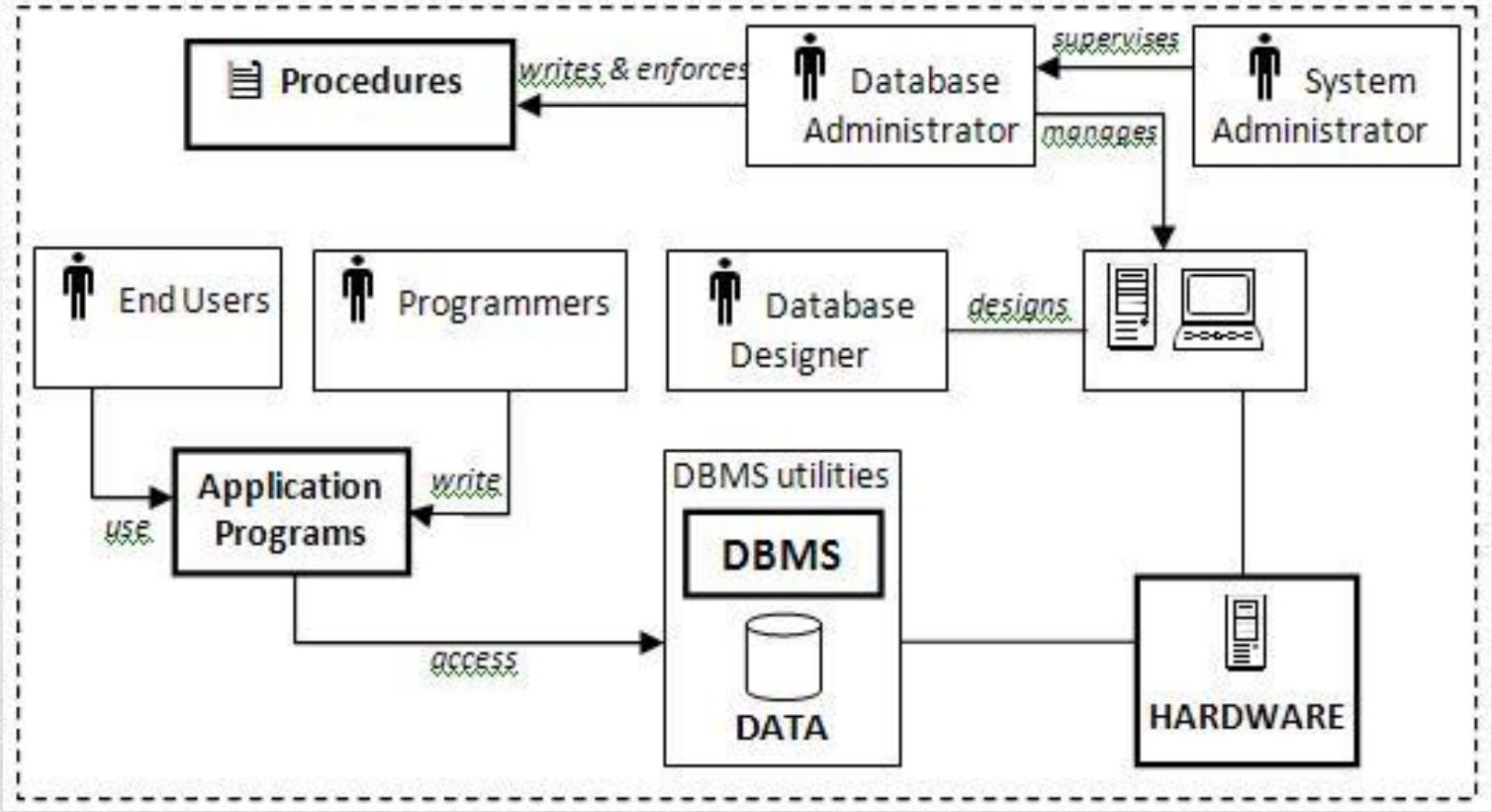
Case Study 1

A database is being construct to keep track of the team and games of a football league. A team has a number of players, not all of whom participate in each game. It is desired to keep track the player participation in each game for each team, the position they played in that game, and the result of the game.

Which DBMS will you choose? Desktop or Server Database?

Group Discussion Q1

- In group of five (5). Describe the three-scheme architecture of DBMS:
  a) External/view level
  b) Conceptual/logical level
  c) Internal/Physical level


Procedures
writes & enforces
Database Administrator
supervises
System Administrator
manages
End Users
Programmers
Database Designer
designs
use
Application Programs
write
DBMS utilities
DBMS
DATA
access
HARDWARE

DBMS Users