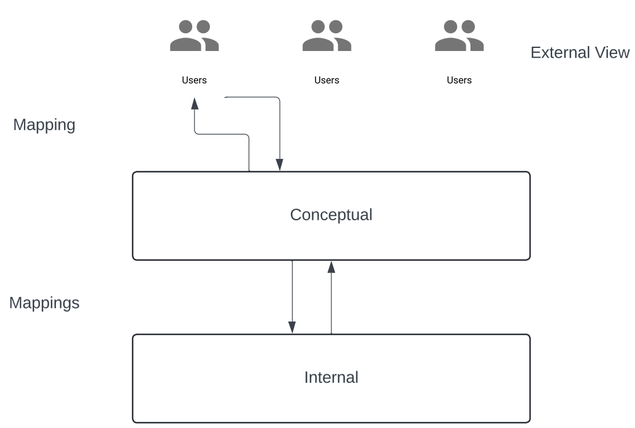
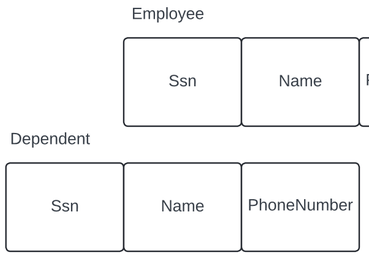
Three Schema Architecture

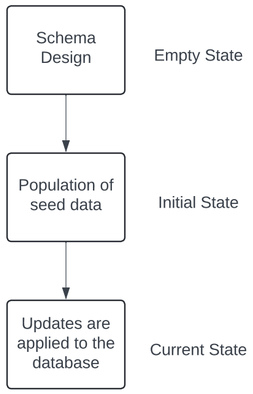


Description of the database - **Schema**, specified when designing the database, changes infrequently.

Schema Construct



Database state - instances of data in our database.



Schema evolution - changes to the initial schema once implemented.

DBMS - ensures the database is in a valid state.

Data Model
1. Hilight important aspects of the data to end users
2. Hide details of data storage, data access.

Relational Data Model (ER Diagram) → Entities - i.e. Employee

Attributes - Position, Ssn, StartDate, etc... make up the majority of stored data in the database.

Relationships - between multiple entities i.e. Works for

Naive, Casual

High level data model (conceptual data models)

Representational data models (record based data models) i.e. Relational Schema

Sophisticated

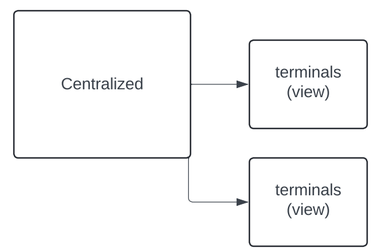
Low Level data models

Access Path i.e. indexes

Self describing data models - i.e. XML

DCMS

Why not use DBMS?
- Small project scope
- embedded systems
- single user systems
- Time



Client Sever Architecture

Client Module — runs on a mobile device, pc, etc... (user interface to the DBMS which lives on the Server)

Sever Module — data storage, data access, searching, other functions.