Challenge 2.
Database Management System

DBMS

Manage database
- database

SQL statement
- **DQL**
  - Select
  - Join
  - From
  - Where
  - Group by
  - Having
  - Order By
- **DDL**
  - Create
  - Alter
  - Drop
  - Rename
  - Truncate
- **DML**
  - Insert
  - Update
  - Delete
- **DCL**
  - Grant
  - Revoke
- **TCL**
  - Begin
  - Commit
  - Rollback
  - Save Point

Storage database
- Table Row — Column
- Log data
- Index
- Database files

Define Databases
- **Tables**
  - Define table
    - PK
    - FK
    - Unique key
    - Column
      - Name
      - Type
      - Metadata
    - Constraint
      - Restrict
      - Cascade
      - Setnull
      - No acrion
  - Indexes
  - Triggers
  - Stored Procedures
- **Relationship**
  - One-to-One (1 : 1)
  - One-to-Many (1 : N)
  - Many-to-Many (N : N)
- **View**
- **Database metadata**
  - Name
  - Storages
    - DESTINATION
    - EXTENSION
- **Metadata strcture**
  - Data
  - Log

Manage Users
- Create
- Show
- Edit
- Delete
- Login

Application