

Database Management Systems Group Project

1. Create a Scenario (Determining a Topic):

- As a group choose a topic according to your interest (for example: library management system, hospital appointment system, etc.).
- Each group should determine a project topic.
- Do not choose a system which was given in the lecture or above example. Try to be more creative.

2. Data Model Design:

- An ER diagram should be drawn where entities and relationships are identified.
- Make sure you give the relation dimensions (cardinality).
- Use one of the ERD software which we look in the lecture or find one for yourself.
- This model should follow normalization rules (up to at least 3NF).
- Make a research and learn about normalization and requirements of 3NF normalization.

3. Database Creation (DDL):

- Table structures should be created on the MySQL database system by writing the necessary CREATE TABLE commands.
- Necessary primary key (PRIMARY KEY) and foreign key (FOREIGN KEY) definitions must be made.
- Relations must be determined.

4. Data Entry (DML):

- For each table, meaningful test data must be created and inserted with INSERT INTO commands.
- A minimum of 5 tables and at least 10 records for each table are required.

5. Demo and Presentation (Mandatory):

- Each group present their project in maximum 10 minutes (+ 5 minutes for only questions) with the following headers:

- Scenario,
- ER diagram,
- Database structure,
- Sample queries
- And should make a practical **live demonstration (DEMO)**.

- Each member of the group must have same knowledge about every part of the project.
- Each member should present during the presentation.
- Each member is going to be evaluated individually.
- During the demo you must run the following types of queries should be written and the returned results should be shown during the demo:

- Simple filtering (SELECT, WHERE, AND, OR, etc.)
- JOIN
- Aggregation Functions (GROUP BY, HAVING, COUNT, AVG, SUM, etc.)
- Associated updates or deletions (UPDATE, DELETE)

6. Views and Stored Procedures (Optional - bonus points):

- At least 1 VIEW and 1 STORED PROCEDURE must be defined.