Reichman University

Relational Databases and SQL 2026

Assignment #2

THIS ASSIGNMENT MUST BE SUBMITTED IN PAIRS.

Assignment Overview

In this assignment, you will design a Logical Entity-Relationship Model for an information system for a restaurant. And then implement it using SQL CREATE TABLE statements.

Instructions

You are required to design a Logical **ERD** for a **Restaurant Management System.** This system should track the business requirements to run a restaurant.

Step 1: Define the Entities

You must define **at least 4 entities** that are essential to this system.
Each entity must include:

- At least **four** attributes with appropriate data types and constraint

Step 2: Define the Relationships

You must establish the following relationships between your entities:

- One One-to-Many (1:M) Relationship
- One One-to-One (1:1) Relationship
- One Many-to-Many (M:N) Relationship

Step 3: Create the Logical ERD

- **Use a professional tool (e.g., draw.io, Lucidchart)** to design the ERD.
- Your ERD must include:
    - Proper use of **data types**
    - **Primary keys** and **Foreign keys**

Step 4: Create the tables in SQL

- Use MySql to implement the Logical ERD
- Your tables must include:
    - Proper use of **data types** (VARCHAR, INTEGER, DATE, etc.)
    - **Primary keys** and **Foreign keys**
    - Constraints (NOT NULL, UNIQUE, etc.)
    - Clear and consistent **naming conventions** for tables, columns, and constraints
    - Use **explicit names** for all foreign key constraints and indexes (e.g., fk_order_Customer, fk_orderitem_menuitem).
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Deliverable

Submit a **single PDF** file that contains your Logical ERD and a screen shot of the **EERD from the workbench** and a single **.sql file** that contains your SQL code. The file should:

- Contain CREATE TABLE statements for all tables
- Be well-formatted, commented if needed

Tips

- You can choose either workflow when building your schema in Workbench:
- Model → Database (Forward Engineering):
  Create the EER Diagram first and then automatically generate the SQL code from it.
- Database → Model (Reverse Engineering):
  Write the CREATE TABLE statements first and then use Workbench to generate the EER Diagram.

Submission Guidelines

- **Format**: Submit a **PDF File** and a **SQL file** of the code.
- All assignments are to be submitted in **pairs**
- The file names must be **identical** in both submissions and must include both student ID numbers (e.g., 123456789_987654321.sql).