

CSE 4503/6503 Database Management Systems, Fall 2021

Project Part 2 Assignment, version 1.0

Objective

To provide a hands-on project experience designing a database.

Assignment

You have finalized your ER diagram for the database to be used in the web-based course waiting list application. It is now time to normalize your design and create the relational tables that will be used to store the required data.

Create a relational schema for the database design created in Part 1 of this project. Refine the schema using normalization techniques. All of your relations must be in **3rd Normal Form (3NF) or higher**.

Create the database tables from your schema using SQL. List a set of CREATE TABLE statements for your database. Any constraints (primary key, foreign key, cardinality constraints, participation constraints) that can be enforced by the database system should be included in your CREATE statements.

Assignment Details

You may start with my solution to Part 1 or your corrected solution to Part 1.

You will work with your group on this project.

You are expected to use the textbook, class notes, class slides. You may consult with the instructor during office hours or via an appointment. If you use information from another source, cite the source in a References section in your project report.

Deliverable

Your project report will be submitted via Canvas. **The project report must have a coversheet with your name(s), your class and section number, the date submitted, and a title.** The deliverable for this project assignment must be submitted as a single PDF document (*.pdf).

The project report for part 2 will include four sections:

1. Entity-Relationship Diagram
2. Relational Schema
3. SQL CREATE TABLE Statements
4. References

Section 1's ER diagram will include primary keys, partial keys, key constraints, participation constraints and/or other concepts. The ER diagram should use the symbols used in the textbook. Define the minimal set of attributes based on the requirements given in Part 1. Use notes to document information that is not in the diagram.

Section 2's relational schema must be in 3rd Normal Form (3NF) or higher. List your database schema in the format used below (uses arrows; Figure 2.1) or you can reference foreign and primary keys with PK and FK (see Figure 2.2).

Figure 2.1

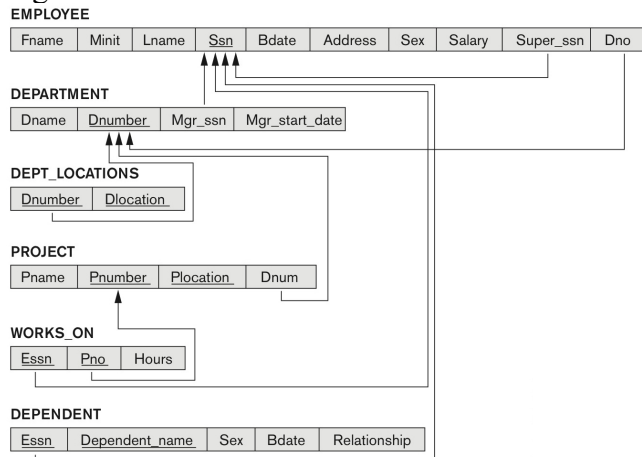
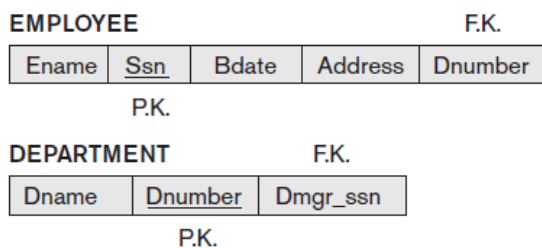


Figure 2.2



The project report should include a References section. If you did not use any additional reference, state that fact in the References section.