Database Systems 10127
Database Project

Due Date: Groups and choice of program – July 11
                Completed project – July 31
                Presentation – first week of August

The projects will be in groups of two or three students. Team members can be from different groups.
In this project you will take a program that you have written in another class, preferably Object Oriented Programming (10118), and build a database for it.
You only need one program. Between three people you should be able to find one that you can work on.
If you have a problem finding a program, let me know as soon as possible and I will find a solution.

Please let me know who is in your group and what program you will work on **by Thursday, July 11**.

1. Foundations – prepare the following:
    a. A general description of the original (java) program and what it does
    b. Requirements for the system – what is the database for?
    c. Who are the user(s) of the system?
    d. Describe the entities in the database (at least 5 entities) and the relationships between them. **You may need to add functionality to the program**. Please do not try to force multiple entities where none should exist (for example multiple ISAs), but rather think how you can expand your program to include new entities.
    e. Create an ERD for your system
    f. Define all the tables based on the ERD

2. Creating the database
    a. Create the database with CREATE commands. Make sure you have all the constraints and keys defined.
    b. Fill the database with data using either INSERT commands or COPY from a file

3. Working with the database
    a. Redo your original program to interact with the database, with all the original functionality. You may need to redo some of your original project or add to it.
    b. The interaction should include both SELECT queries and INSERT/UPDATE/DELETE queries.

4. What to turn in:
    a. A folder containing all the components described in sections 1-3
        i. PowerPoint Presentation including description, requirements, user(s), ERD and tables; original and new Java programs; SQL file for creating the DB
        ii. Turn in to moodle
    b. A 10-15 minute presentation of your project, given in the first week of August.
        i.   Presentation in English.
        ii. Demonstration of running the program.
        iii. Face-to-face or Zoom. All group members need to be present.
        iv. There will be a signup sheet for several days and evening during the week.

Remember: This is a database project. The focus of the project is your ERD, tables and the interaction of an existing program with the database.