

**CSE 414 Databases – Spring 2022**  
**Term Project**  
**Deadline (03.06.2022 Friday, 23:55)**

Suppose that you have a company. You want to create the database of your company.

- Describe the user requirements of your company.
- Draw the E-R diagram of the company.
- Do normalization.
- List the functional dependencies.
- List your tables.
- Create the database including everything (tables, relationships, keys etc.). You may use any database management system.
- Create the user interface of at least 5 modules using any programming language. Choose the interfaces according to the questions below.
- Create 1 outer right, 1 outer left, full outer query on user interface.
- Create and use at least 5 different triggers making completely different tasks. Show how they are working in your interfaces.
- Create and use at least 5 different views that are completely different from each other. Show how they are working in your interface.

**Additional:**

- Give and create at least 3 atomic transactions.
- For at least 3 tasks solve concurrency of transactions using any techniques in the book.
- Add additional details about the database if there is any.
- Use inheritance for the tables.

**Note:**

- Your E-R diagram should be as complex as the E-R diagram of student managements system example in the book. Which means, it should have many entities and relations.
- You have to prepare your project individually. This project is not a group Project.