## Homework 1 CSCE 5350 Fall 2024

## SQL Operations and Queries

## **Database Description:**

employee (<a href="mailto:employee\_name">employee (employee\_name</a>, street, city)
works (<a href="mailto:employee\_name">employee\_name</a>, company\_name, salary)
company (<a href="mailto:employee\_name">company (company\_name</a>, city)
manages (<a href="mailto:employee\_name">employee\_name</a>, manager\_name)

- 1. Write an SQL statement to create the tables for the Employee Database, including the necessary referential-integrity constraints.
- 2. Insert at least 4 employees into the "employee" table with their respective details (employee\_name, street, city). Insert at least 3 tuples into each table.
- 3. Write an SQL query to retrieve the names of all employees and their associated company names and salaries using an inner join operation.
- 4. Write an SQL query to delete a company from the "company" table along with its associated data in the "works" table.
- 5. Write an SQL query to retrieve the names of employees who do not have a company listed in the "works" table using a right outer join operation.
- 6. Alter the structure of the "employee" table to add a new column called "phone\_number" of type VARCHAR(20).
- 7. Rename the "works" table to "employment" and modify its structure to include an additional column called "start\_date" of type DATE.
- 8. Write an SQL query to count the number of employees in each city using a group by clause and join operations.

## Submission:

- 1. Install MySQL
- 2. Submit the query for each question, with the result table as a screenshot.
- 3. **Note**: Plagiarism is strictly enforced, and identical solutions get ZERO marks and no negotiations.