Program: AI

Level: Second　　　　　**Spring 2021/2022**

Course Code: 02-24-00202　Course: Introduction to Database system

Database Project　　　　**Dr. Sameh Abosamra**

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A real estate company system

Description:

　　A real estate development and marketing company needs a software system to organize the sales and sale process. The company has multiple buildings in different governments each building has length, width, height, area, building area, address, position, description and number of apartments. Moreover, each apartment has some properties such as: floor, area, position, description, price, number of rooms, number of path rooms and dimensions of each room. When the customer signs the contract, we need to keep the information of this customer and the details of the payment process such as installment payments details such as amounts and dates.

Requirements:

1- Design the EER diagram of these requirements.
2- Write the sql statements that create the required tables.
3- <u>Assume</u> the necessary assumptions to achieve the target.
4- Use DBMS such as mysql or oracle to run your sql statements.
5- Insert sample data in your database at least 5 buildings, 10 apartments, 2 sales process and installments using insert statements. Your sample data has to be sufficient to show some results for the mentioned queries.
6- Design a java program that connects to your database to get the following information:
   a. Find apartments that their price less than or equal a specific price.
   b. Find the list of apartments that are not sold.
   c. Find a list of installments that are not paid with customer information
   d. The list of apartments that were sold this month.
   e. The list of apartments that each apartment has at least one installment>60,000 and count of its installments is greater than 5.

Instructions:

- The deliverables are:
   a. The documentation of your project contains:
      i. EER diagram.
      ii. sql statements that creates tables, relationships between tables and data.
   b. Live database that contains tables and data.
- The deadline of deliverables is 28th December 2021
- Be ready for questions at project discussion.

Good Luck