Information Storage and Management I

ER Modelling (Zero Marks)

Problem I

Draw an ER diagram for a teacher system for a high school. The system store information about classes that the school provides, teachers who teach the class and students who take the class.

- Each class must be associated with at least one teacher, but a teacher may appear on any number, zero or more, classes
- Each student must be enrolled in at least one class, but a class can exists have zero students enrolled

Teachers and students share two common attributes, id and name. Teachers have a specific attribute, email address. The DB must be able to keep track of the final grade of the students for each class and the address of the students.

Each class is described by class id, class name, teacher id, time, credits. One class may have more than one teacher.

Draw the ER diagram (use only one-to-many relations)

1. Write SQL statements to create the tables of the of the previous ER diagram (include primary keys and foreign keys)

Problem II

Design an ER diagram to represent the following situation:

Construct an ER diagram for a car insurance company whose customers own one or more cars each. Each car has associated with it zero to any number of recorded accidents and all accident reports must have at least 1 car. Each insurance policy covers only one car, and has one or more premium payments associated with it. Each payment is for a particular period of time, and has an associated due date, and the date when the payment was received.

1. Draw the ER diagram (use only one-to-many relations)
2. Write SQL statements to create the tables of the of the previous ER diagram (include primary keys and foreign keys)