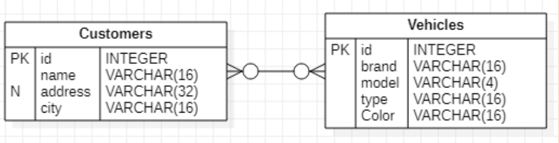
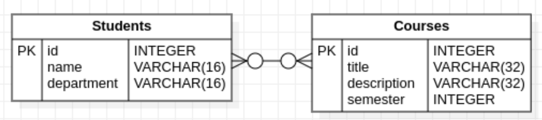
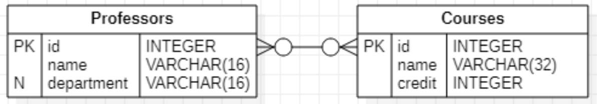
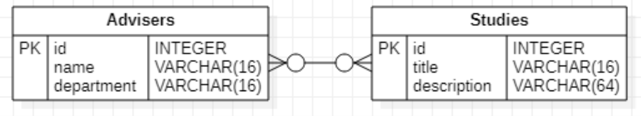
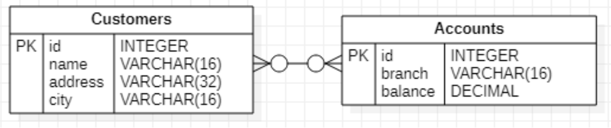
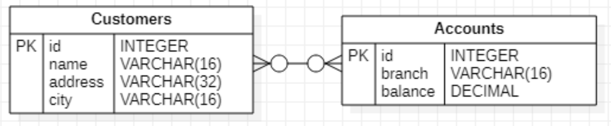
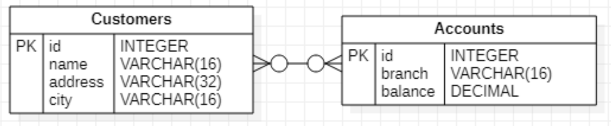
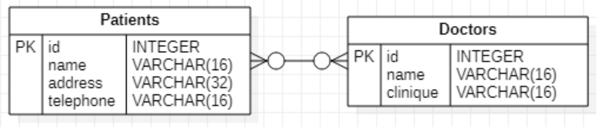
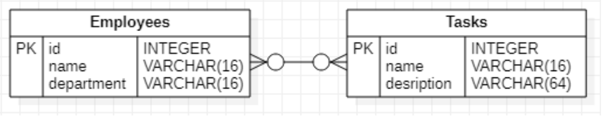
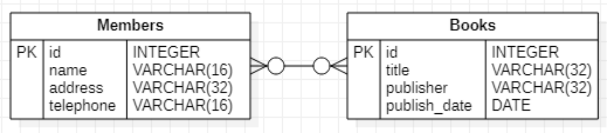
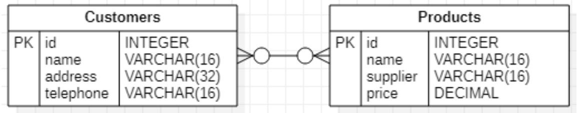
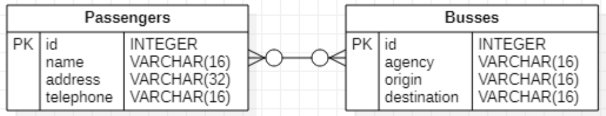
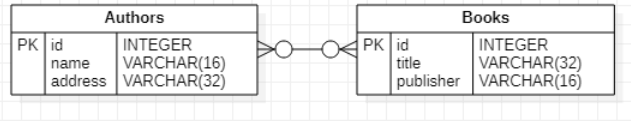
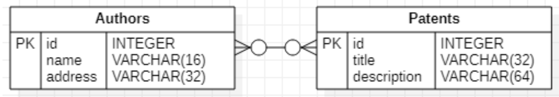
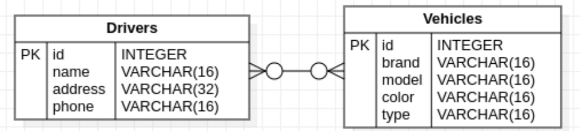
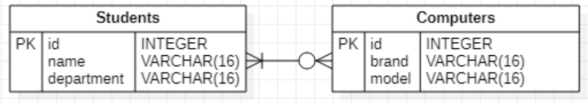
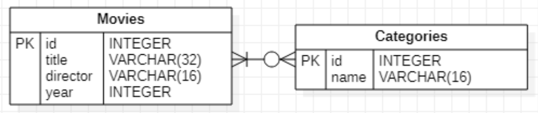
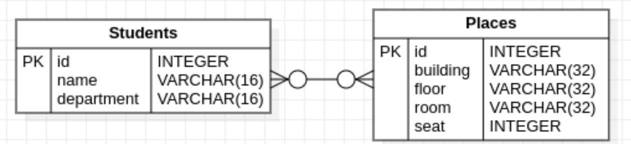
SWE212: DISTRIBUTED INFORMATION MANAGEMENT SYSTEMS (DIMS)

Project Topics 2026

You will work on the projects in groups of 4 or 5 student throughout the semester. Each group is supposed to pick a topic from the list below. The groups are expected to complete 4 different projects, and in class presentation dates are announced on GitHub. You can see the project details on “https://github.com/ozmen54/swe212-2026”. The groups are allowed 10-minute for presentation in the class. Exemplary studies are carried out in the class so as to help your project work.

No	Project description	E-R Diagram
	THIS IS EXAMPLE PROJECT Car rental: In class example, Customers-Vehicles assignment Join: Rentals	 Customers PK id INTEGER name VARCHAR(16) N address VARCHAR(32) city VARCHAR(16) Vehicles PK id INTEGER brand VARCHAR(16) model VARCHAR(4) type VARCHAR(16) Color VARCHAR(16) Join: Rentals (Rent date, Return date, Is returned)
1	**School management-1**: Students – Classes assignment Join: Enrollments	 Students PK id INTEGER name VARCHAR(16) department VARCHAR(16) Courses PK id INTEGER title VARCHAR(32) description VARCHAR(32) semester INTEGER Join: Enrollments (Class Date, Tuition, Attendance)
2	**School management-2**: Professors - Courses assignment Join: Teaches	 Professors PK id INTEGER name VARCHAR(16) N department VARCHAR(16) Courses PK id INTEGER name VARCHAR(32) credit INTEGER Join: Teaches (Student count, Start date, Ending date)
3	**School management-3**: Advisers - Studies assignment Join: Supervises	 Advisers PK id INTEGER name VARCHAR(16) department VARCHAR(16) Studies PK id INTEGER title VARCHAR(16) description VARCHAR(64) Join: Supervises (Student, Performance)
4	**Banking management-1**: Customers - Accounts assignment Join: Depositors	 Customers PK id INTEGER name VARCHAR(16) address VARCHAR(32) city VARCHAR(16) Accounts PK id INTEGER branch VARCHAR(16) balance DECIMAL Join: Depositors (Date, Amount)
5	**Banking management-2**: Customers - Accounts assignment Join: Withdrawals	 Customers PK id INTEGER name VARCHAR(16) address VARCHAR(32) city VARCHAR(16) Accounts PK id INTEGER branch VARCHAR(16) balance DECIMAL Join: Withdrawals (Date, Amount), check amount not below zero!
6	**Banking management-3**: Customers - Accounts assignment Join: Loans	 Customers PK id INTEGER name VARCHAR(16) address VARCHAR(32) city VARCHAR(16) Accounts PK id INTEGER branch VARCHAR(16) balance DECIMAL Join: Loans (Date, Amount), check loan not above a limit!
7	**Medical management**: Patients - Doctors assignment Join: Appointments	 Patients PK id INTEGER name VARCHAR(16) address VARCHAR(32) telephone VARCHAR(16) Doctors PK id INTEGER name VARCHAR(16) clinique VARCHAR(16) Join: Appointments (App. Date, App. Time)
8	**Task management**: Employee - Tasks assignment Join: Taskers	 Employees PK id INTEGER name VARCHAR(16) department VARCHAR(16) Tasks PK id INTEGER name VARCHAR(16) desription VARCHAR(64) Join: Taskers (Task date, Task time)

9	**Library management**: Members - Books assignment Join: Borrowers	 Members PK id INTEGER name VARCHAR(16) address VARCHAR(32) telephone VARCHAR(16) Books PK id INTEGER title VARCHAR(32) publisher VARCHAR(32) publish_date DATE Join: Borrowers (Due date, Return date, Issue)
10	**Online shopping**: Customers - Products assignment Join: Orders	 Customers PK id INTEGER name VARCHAR(16) address VARCHAR(32) telephone VARCHAR(16) Products PK id INTEGER name VARCHAR(16) supplier VARCHAR(16) price DECIMAL Join: Orders (Date, City, Delivery status)
11	**Travel management**: Passengers - Buses assignment Join: Travels	 Passengers PK id INTEGER name VARCHAR(16) address VARCHAR(32) telephone VARCHAR(16) Busses PK id INTEGER agency VARCHAR(16) origin VARCHAR(16) destination VARCHAR(16) Join: Travels (Date, Time, Price, Seat)
12	**Publish management**: Authors-Books assignment Join: Publishes	 Authors PK id INTEGER name VARCHAR(16) address VARCHAR(32) Books PK id INTEGER title VARCHAR(32) publisher VARCHAR(16) Join: Publishes (Date, Edition)
13	**Patent management**: Authors - Patents assignment Join: Certifications	 Authors PK id INTEGER name VARCHAR(16) address VARCHAR(32) Patents PK id INTEGER title VARCHAR(32) description VARCHAR(64) Join: Certifications (Issue date, Duration in year)
14	**Driver management**: Drivers-Vehicles assignment Join: Assignments	 Drivers PK id INTEGER name VARCHAR(16) address VARCHAR(32) phone VARCHAR(16) Vehicles PK id INTEGER brand VARCHAR(16) model VARCHAR(16) color VARCHAR(16) type VARCHAR(16) Join: Assignments (Assigned Date, Return date)
15	**Computer checkout management**: Students – Computers Join: Reservations	 Students PK id INTEGER name VARCHAR(16) department VARCHAR(16) Computers PK id INTEGER brand VARCHAR(16) model VARCHAR(16) Join: Reservations (Date, Duration)
16	**Movie management**: Movies – Categories Join: Classifications	 Movies PK id INTEGER title VARCHAR(32) director VARCHAR(16) year INTEGER Categories PK id INTEGER name VARCHAR(16) Join: Classifications (Date)
17	**Library place management**: Students – places Join: Reservation	 Students PK id INTEGER name VARCHAR(16) department VARCHAR(16) Places PK id INTEGER building VARCHAR(32) floor VARCHAR(32) room VARCHAR(32) seat INTEGER Join: Reservation (Date, Duration)