



Academy of Computer Science and Software Engineering

Informatics 2A: Database Design

Practical Assignment: P02 (Due: 28 February @ 13:40)

Assignment

Objective:

Your task is to design and implement a comprehensive database to manage a carpooling service efficiently. The database will serve as a digital platform for coordinating rides among a group of individuals, some of whom own cars while others do not.

Scenario:

Imagine a scenario where employees of a large organization seek to establish a carpooling system to facilitate their daily commutes. This system will not only help reduce individual commuting costs but also contribute to environmental sustainability by minimizing the number of vehicles on the road.

System Information Requirements:

User Information:

Collect personal details such as name, contact information (phone number, email address), and home address.

Include an option for users to specify whether they own a car or not.

Car Details:

For users who own cars, gather information about their vehicles:

Make, model, year of manufacture, and license plate number.

Optionally, include additional details such as color and seating capacity.

Carpool Schedules:

Capture data regarding scheduled carpool trips:

Departure time, indicating when the carpool will begin its journey.

Departure location, specifying the starting point of the carpool trip.

Destination, identifying the endpoint of the journey.

Available seats, indicating the number of vacant seats in the carpool vehicle.

Carpool Bookings:

Record bookings made by users for specific carpool schedules:

Booking time, indicating when the user reserved a seat in a carpool.

Status of the booking (confirmed, pending, canceled, etc.).

Instructions	
<ul style="list-style-type: none">• All questions regarding the assignment must be emailed to the lecturer.• You must create a SQL script.• Your submission must be zipped (only .zip accepted) and named with your student number followed with an underscore and the practical number P01 as follows.<ul style="list-style-type: none">◦ E.g., 220112345_P04.zip• No Late submissions will be accepted.• No email submission will be allowed.• Failure to follow these instructions will result in a zero being awarded for this practical.	
Marksheet	
Correct format of submission	10
Breakdown logic	10
SQL statements	10
Relationships	10
Bonus	5
Total	45