BIRZEIT UNIVERSITY

Faculty of Engineering and Technology

Computer Science Department

Database Systems

Driving School Database Management system ERD

(Phase two)

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Date: 11/5/2023.

Summary

This project will be a driving school management system, as learning to drive has become an important skill in today's world. The idea of this project came to us because students and driving trainers have trouble keeping track of their lessons, schedules, and progress. Therefore, we decided to create an application that arranges all the necessary informa t ion for both the students and trainers. For Al-Madina driving school in Tulkarem.

Introduction

This project aims to develop a comprehensive database software system for a driving school based in Tulkarem called Al-Madina to efficiently manage their operations and their administrative tasks since they don't have a software system and just use bunch of papers and pens to manage all data they have which obviously takes lots of time and efforts and sometimes ends up with lots of mistaken information and calculations.
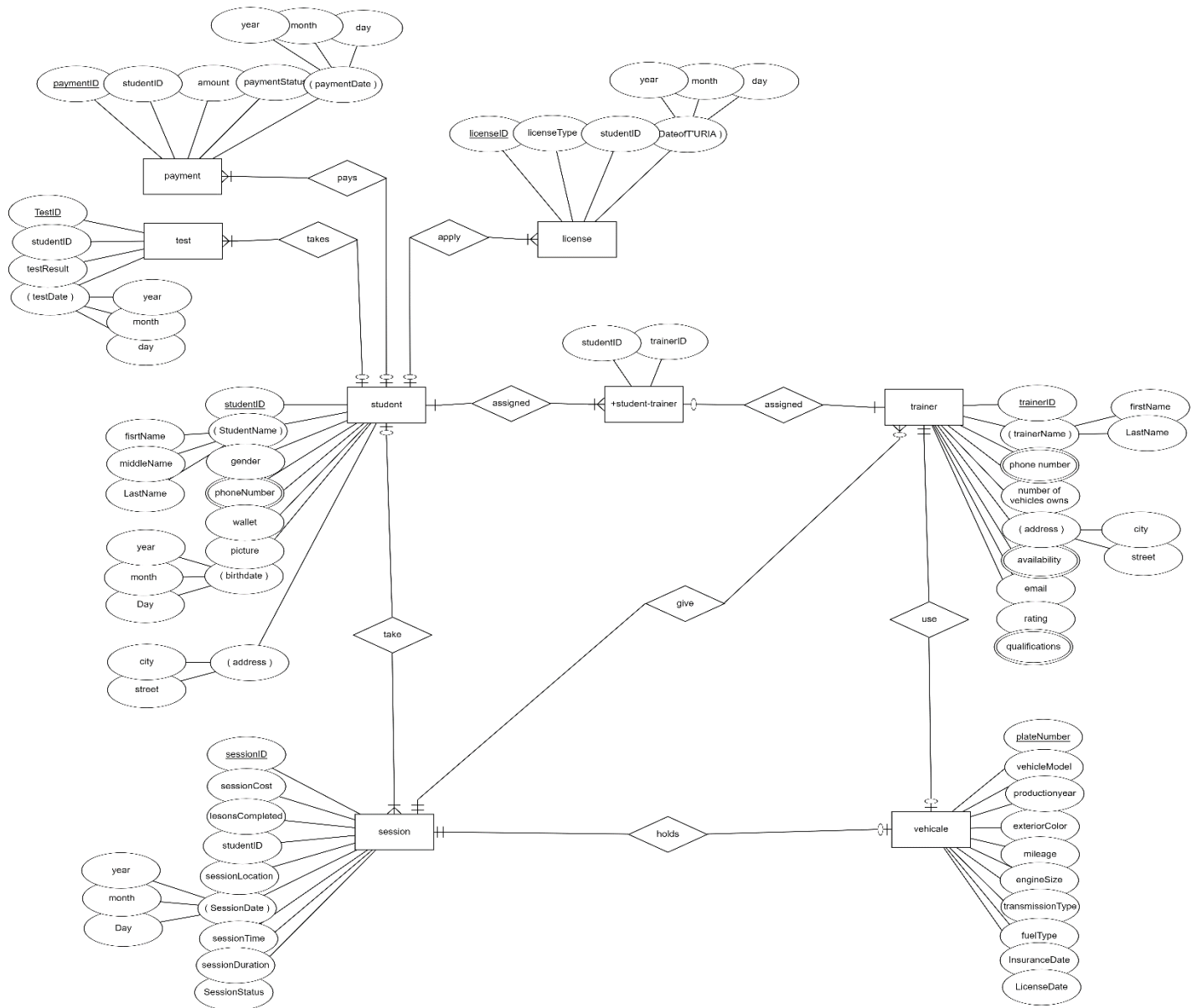
The database system will be designed to handle various aspects of the driving school's operations, including student registration, scheduling of driving lessons, tracking progress of each student, managing trainers and vehicles, and generating useful reports.

The driving school database system will have a user-friendly interface that allows administrators to easily store, update, delete and retrieve data related to students, trainers, vehicles, and lessons. That way we can help them improve their systems and avoid making mistakes.

Data Requirements

- The student has: student id, student name (Quadruple name), date of birth, pictures (applied or not), gender, address, phone number, enrollment date, enrollment status (active or completed or canceled), payment status (full, partial), lessons completed, lessons remaining, trainer assigned, vehicle assigned, test result (Pass or fail), date of test, eyes test, license type, feedback after taking the test. Each student must have one trainer, and one trainer could have many students.

- The trainer has: trainer id, trainer name, phone number, email, address, qualifications, availability (days and hours available), rating, number of vehicles owns. Each trainer can have many lessons with many students.

- The lesson has: lesson id, lesson date, lesson time, lesson status (cancelled, completed), lesson duration, lesson cost, lesson location (parking, highway, city driving). Each lesson is assigned to one student, one trainer, and one vehicle.

- The vehicle has: plate number, vehicle model, exterior color, production year, mileage, engine size, transmission type (manual or automatic or truck or bus), fuel type (gasoline, diesel, electric, hybrid), Insurance date, License date. Each vehicle can be assigned to many lessons, and each lesson can have one vehicle.

ERD

Technology

In our project we will use Java language through Eclipse IDE with Scene Builder for building user interfaces, and MySQL (SQL language) for building the database system. All users will share the same code using GitHub where each user has their own pc with an operating system of windows 10.