COMP3005

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Video link: https://youtu.be/_J114TTQEs0
Github link: https://github.com/Neperoni/COMP3005GroupProject

The ER-model and ER-scheme can be found in the documentation folder

then run DDL and DML and it should work

How to run
1. Create a Postgres SQL database using the provided DDL and DML files
2. In the server.js file change the variables in the client variable (starts on line 29) to match the login variables for your Postgre Database instance
3. Ensure you have Node JS installed, then run npm install to download the required dependencies
4. Run the server by running node server.js
5. If the server launches correctly it will inform you if it has connected to the database, then it will display the localhost port which has the application

DML insertion
Some of the DML is inserting data referencing autoincremented IDs
these are manually typed, and so may not match
before running any DDL or DML make sure to wipe the server with
DROP SCHEMA public CASCADE;
CREATE SCHEMA public;
this should make it work

Design assumptions:
1. The admin is a secretary, so knows all the valid rooms, so any room number entered is valid
2. Private sessions can have multiple people, and so is the same table as public, just with a boolean showing if it is public
3. Email is unique across the member, trainer, and admin users as it is used for login
4. Most fields are non-unique, unless specified as a key like email or are compositely unique in a primary key exercise_name, exercise_goal)
5. Members should not create a personal training session, this functionality is given to the admin/secretary/receptionist, in my experience with sports clinics you make appointments

through a receptionist. This also would have otherwise exposed a lot of trainer information to members, like their working hours every day of the week.

6. Health stats requirement is fulfilled by resting bpm and blood pressure
7. Exercise routines requirement is fulfilled by exercise name, instructions, and history of completion
8. Admin server endpoints are only going to be accessed by the admin page
9. The relationships an admin partakes in are not specific to the admin. So if they schedule something, or create a bill, the admin who did the task is not stored, as their identity is not relevant to the bill or schedule. This is why their lines in the ER model are dashed, they are responsible or partake in many of the relationships, but are not relevant to the contents of the relationship. We also do not store anything about them other than login details.

User

email	password	account type

Member

email	first name	last name	card number	resting bpm	blood pressure

ExerciseGoals

email	exercise_name	goal		note: this is a different exercise name, it is not a foreign key
				goals are not related to routines or history

Trainer

email	name	phone

Admin has no data to store, so there is no admin entry, other than login details for an admin stored in Users table

Booking

booking ID	room	day	start time	end time	seats	public	trainer email

Exercise Routines

email	exercise name	instructions

Exercise History

email	exercise name	date	progress	difficulty

TrainerAvailabilities

email	day	start_time	end_time		there must not be overlaps, and so there needs to be additional checking

Bills

bill ID	member email	amount	reason	paid

equipments

equipment ID	equipname	lastservice	room	service period	company name	company email	company phone	service cost

Participant

booking id	member email

history
- date
- difficulty
- completed

exercise routines
- name
- instructions

N

Sessions
- Seats
- Public
- Room
- Time

attends — N — teaches — N

Trainer
- name
- phone

Personal Info
- first name
- last name
- card

health stats
- resting bpm
- blood pressure

Member

specifies hours — N

Availability
- day
- start
- end

referenced

Schedules (no data relation)

fitness goals
- exercise
- goal

N

N — pays

Billing
- amount
- reason
- paid

User
- password
- email
- account type

Charges | Marks paid

logs into

check login credentials

Log in

1 — 1

Admin

views / updates

singleton
has no data to store,
but is the reason for
many databases to
exist

Monitor maintenance

N — serviced

added or removed

Equipment
- room
- name
- service date
- service period
- company
- service cost

- name
- email
- phone