COMP 3005 Report Doc
Patrick Dalphy 101267000

Video Link: https://youtu.be/A4HbTwgeOxQ

Github Link: https://github.com/pdadal/3005Final
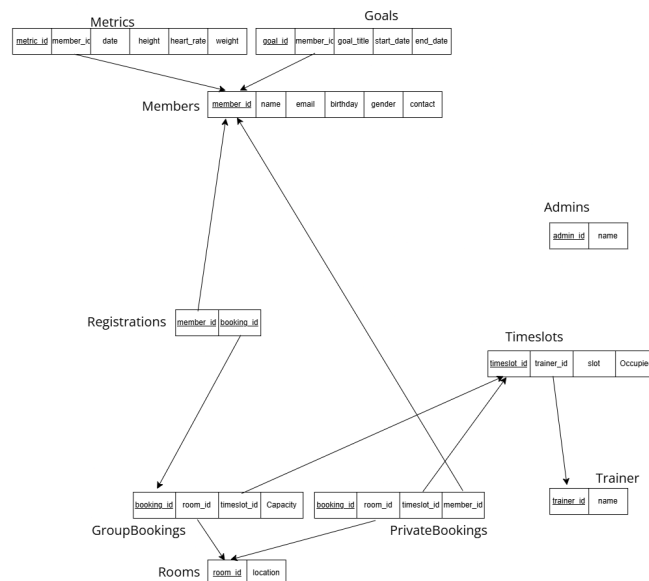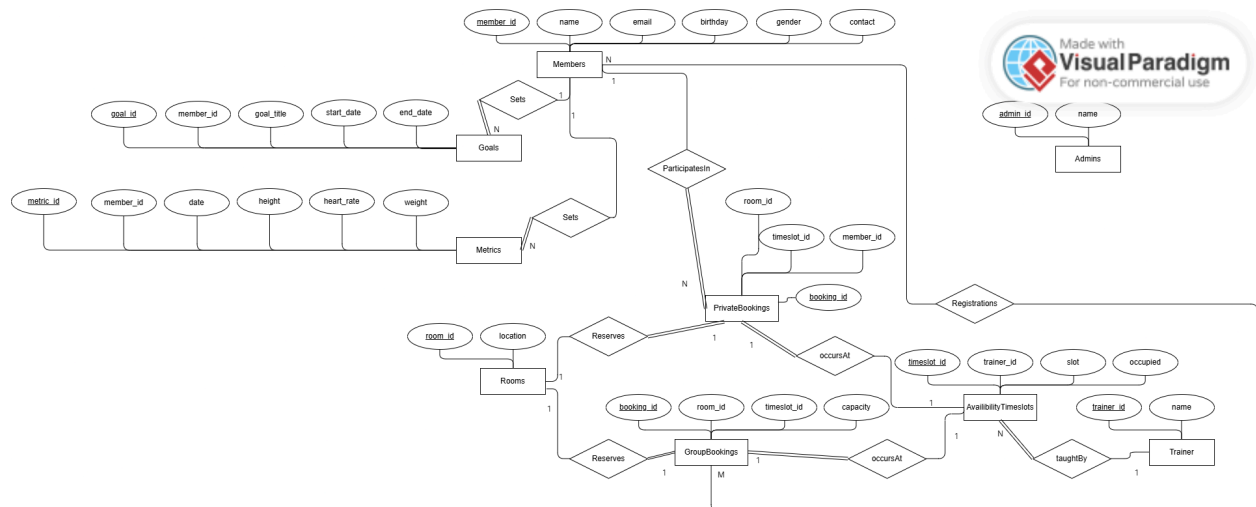

ER Model and Mapping: (Note: if you zoom into pdf it becomes easier to read)
Link to drive with higher res photo:
https://drive.google.com/file/d/1wg-Tk_KAJMQmbpvnh6P11PdCtZPFbDaq/view?usp=drive_link

Normalisation

All the Tables Are Already in 3NF

None violate 1NF since there are no nested relations in any

Metrics:

metric_id	member_id	date	height	heart_rate	weight

The table is in 3nf already since member_id, date, height, heart_rate, and weight all depend solely on the metric id indicating the unique metric.
- No Transitive dependencies or partial keys used

Goals:

goal_id	member_id	goal_title	start_date	end_date

The table is in 3nf already since member_id, goal title, start and end dates all depend solely on the metric id indicating the unique Goal.
- No Transitive dependencies or partial keys used

Members:

member_id	name	email	birthday	gender	contact

The table is in 3nf already since name, email, birthday, and gender all depend solely on the member id indicating the unique member.
- No Transitive dependencies or partial keys used

Registrations

member_id	booking_id

The table is in 3nf already since both of the two attributes comprise the primary key, and as such no other elements depend on them
- No Transitive dependencies or partial keys used

Admins

admin_id	name

The table is in 3nf already since name depends only on the admin id
- No Transitive dependencies or partial keys

Timeslots

timeslot_id	trainer_id	slot	Occupied

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The table is in 3nf already since the trainer id, slot and if it is occupied depend only on the unique identifier for the timeslot
- No Transitive dependencies or partial keys

Trainer

trainer_id	name

The table is in 3nf already since name depends only on the trainer id
- No Transitive dependencies or partial keys

GroupBookings

booking_id	room_id	timeslot_id	Capacity

The table is in 3nf already since room timeslot and capacity depend only on the booking (Note: I do make the assumption here that capacity isnt determined by the room itself, but by what admin decides)
- No Transitive dependencies or partial keys

PrivateBookings

booking_id	room_id	timeslot_id	member_id

The table is in 3nf already since room timeslot and member depends solely on the booking id
- No Transitive dependencies or partial keys

Rooms

room_id	location

The table is in 3nf already since location depends solely on room id
- No Transitive dependencies or partial keys