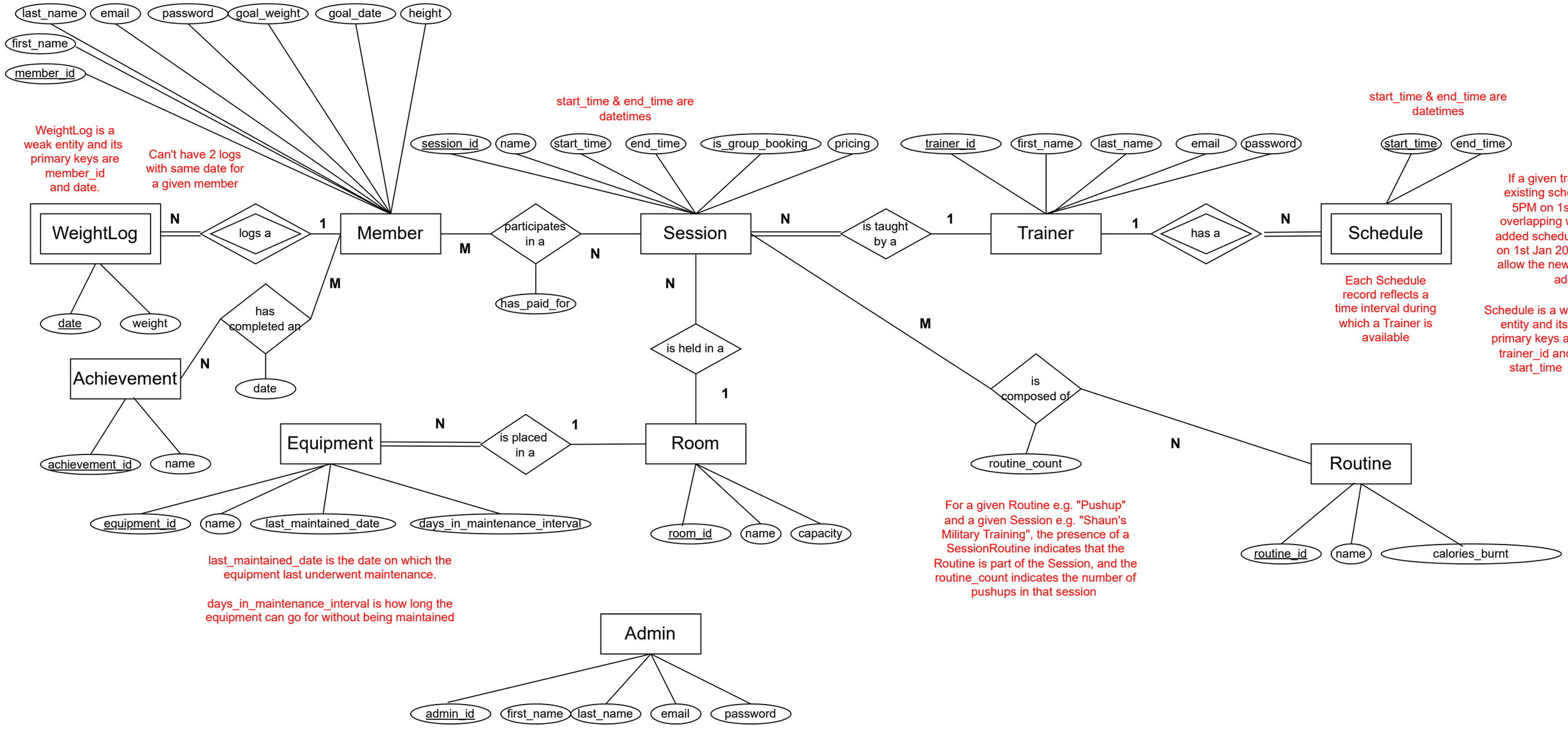
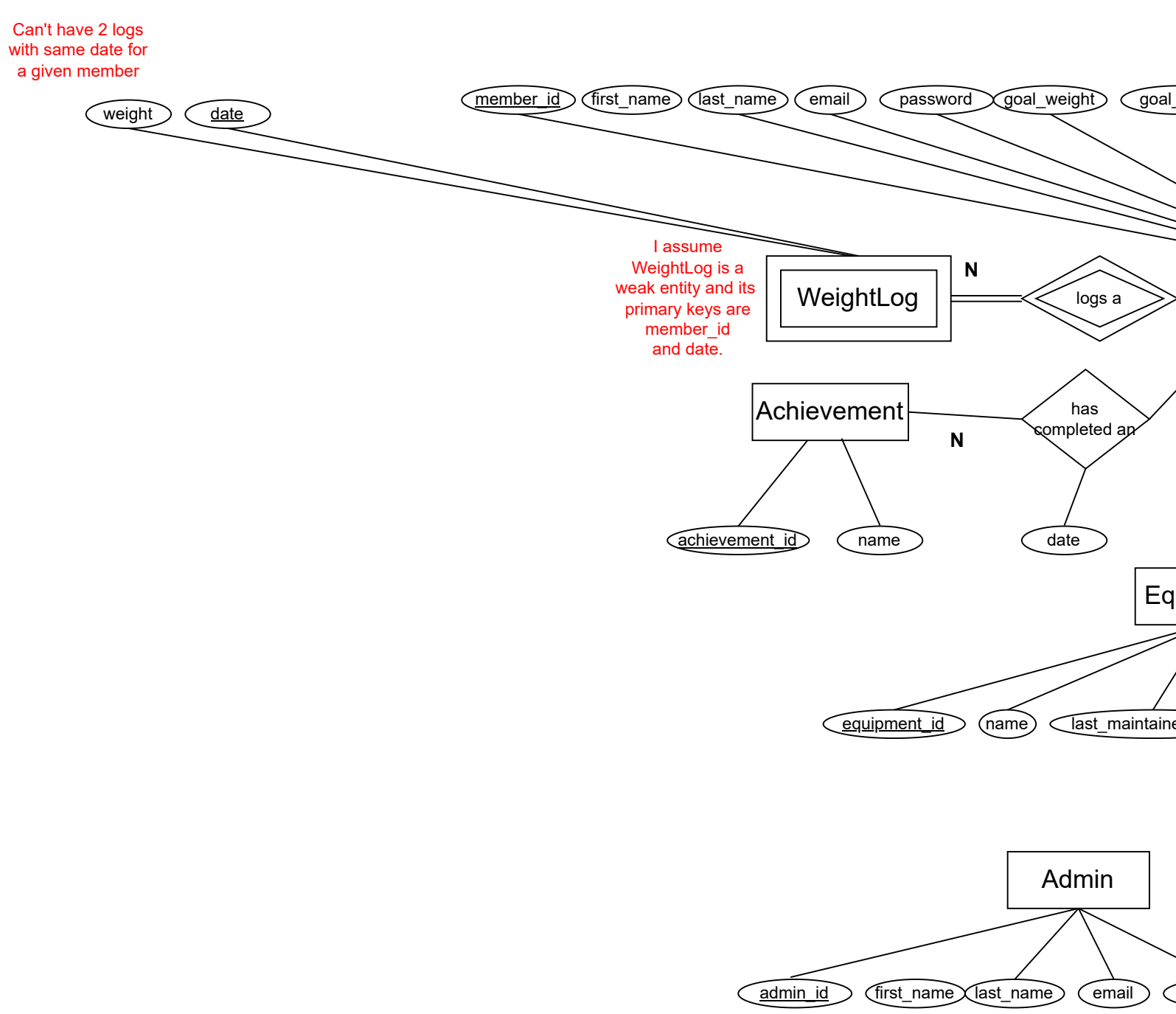
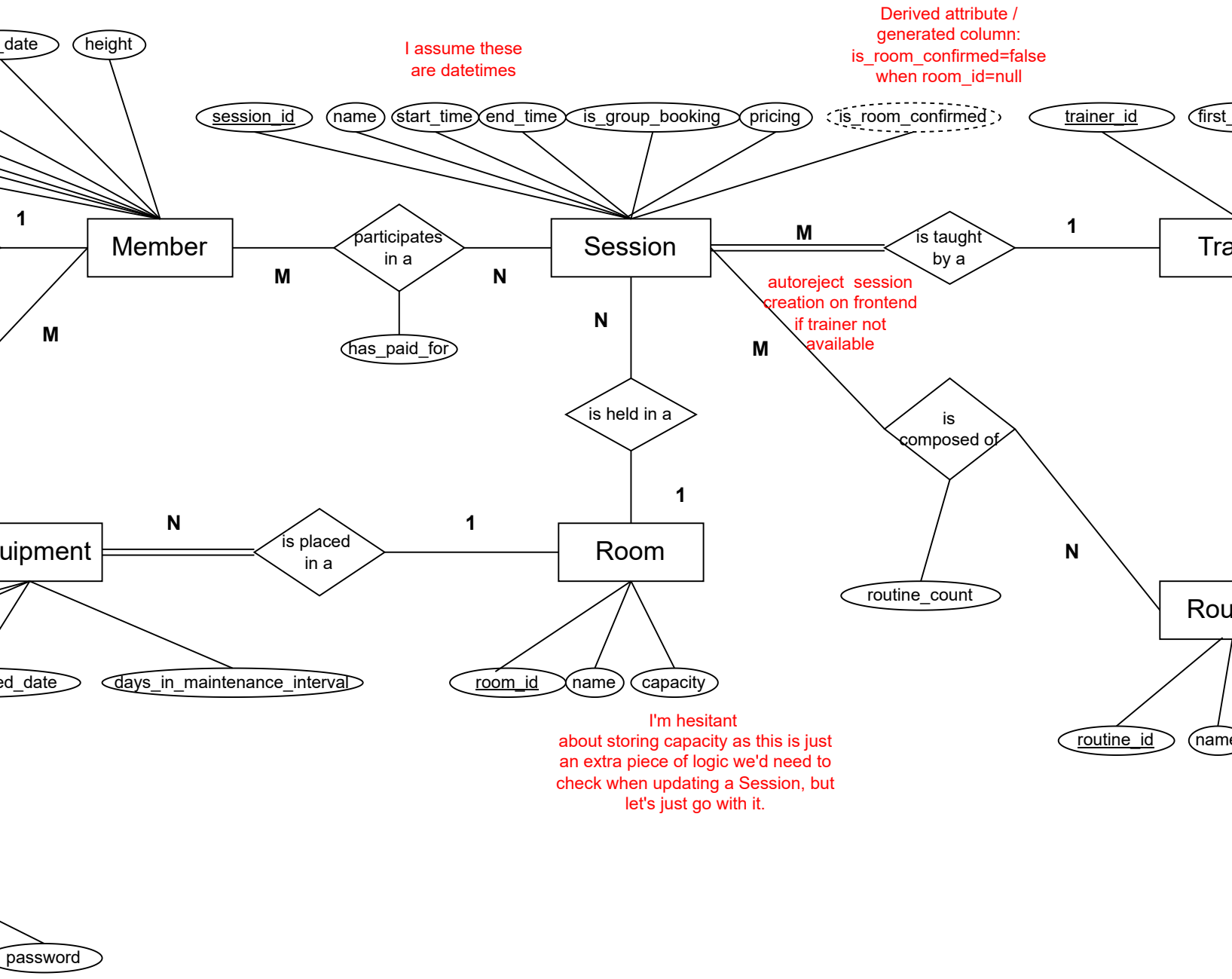
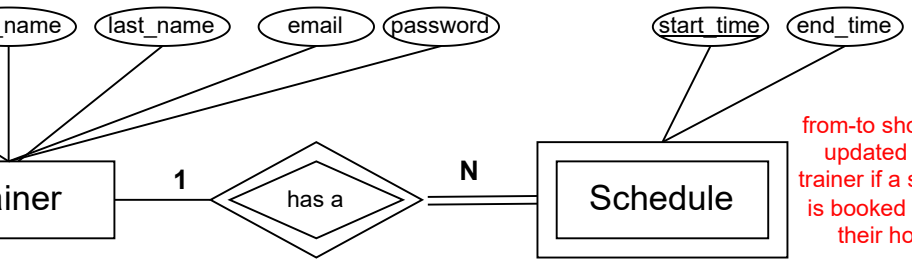

last_name
email
password
goal_weight
goal_date
height
first_name
member_id
WeightLog is a weak entity and its primary keys are member_id and date.
Can't have 2 logs with same date for a given member
start_time & end_time are datetimes
session_id
name
start_time
end_time
is_group_booking
pricing
trainer_id
first_name
last_name
email
password
start_time & end_time are datetimes
start_time
end_time
If a given trainer has an existing schedule (e.g. 3-5PM on 1st Jan 2024) overlapping with the to-be-added schedule (e.g. 2-4PM on 1st Jan 2024), then don't allow the new session to be added
WeightLog
N
logs a
1
Member
M
participates in a
N
Session
N
is taught by a
1
Trainer
1
has a
N
Schedule
Each Schedule record reflects a time interval during which a Trainer is available
Schedule is a weak entity and its primary keys are trainer_id and start_time
has_paid_for
date
weight
M
has completed an
N
Achievement
date
N
is held in a
1
M
is composed of
N
Routine
achievement_id
name
Equipment
N
is placed in a
1
Room
routine_count
equipment_id
name
last_maintained_date
days_in_maintenance_interval
room_id
name
capacity
routine_id
name
calories_burnt
last_maintained_date is the date on which the equipment last underwent maintenance.
days_in_maintenance_interval is how long the equipment can go for without being maintained
For a given Routine e.g. "Pushup" and a given Session e.g. "Shaun's Military Training", the presence of a SessionRoutine indicates that the Routine is part of the Session, and the routine_count indicates the number of pushups in that session

Admin
admin_id
first_name
last_name
email
password


Can't have 2 logs with same date for a given member
weight
date
member_id
first_name
last_name
email
password
goal_weight
goal_
I assume WeightLog is a weak entity and its primary keys are member_id and date.
WeightLog
N
logs a
Achievement
N
has completed an
achievement_id
name
date
Eq
equipment_id
name
last_maintaine
Admin
admin_id
first_name
last_name
email


_date
height
I assume these are datetimes
Derived attribute / generated column: is_room_confirmed=false when room_id=null
session_id
name
start_time
end_time
is_group_booking
pricing
is_room_confirmed
trainer_id
first_
1
Member
participates in a
Session
M
is taught by a
1
Tra
M
N
M
has_paid_for
N
autoreject session creation on frontend if trainer not available
M
is held in a
is composed of
1
N
1
uipment
is placed in a
Room
N
routine_count
Rou
ed_date
days_in_maintenance_interval
room_id
name
capacity
I'm hesitant about storing capacity as this is just an extra piece of logic we'd need to check when updating a Session, but let's just go with it.
routine_id
name
password



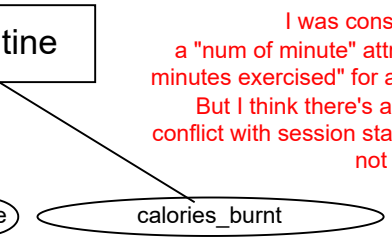
I assume these are datetimes

When adding a schedule, what if a given trainer has overlap with the to-be-added schedule (e.g. 3-5PM and 4-6PM)? Should we try to combine the records into one (3-6PM?) Probably not, but when creating schedules, should probs have a rule that they dont overlap.

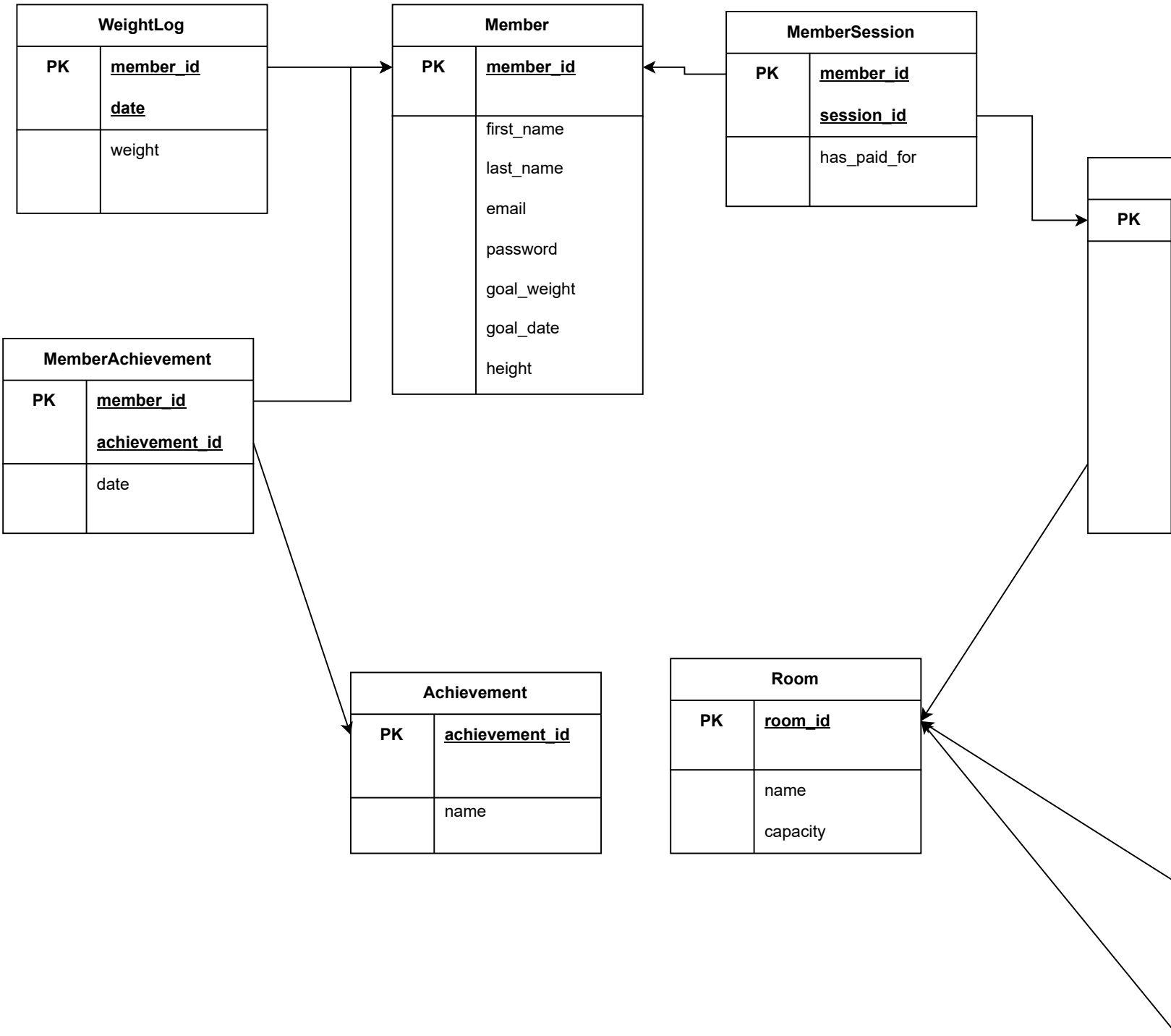
from-to should be updated for a trainer if a session is booked during their hours

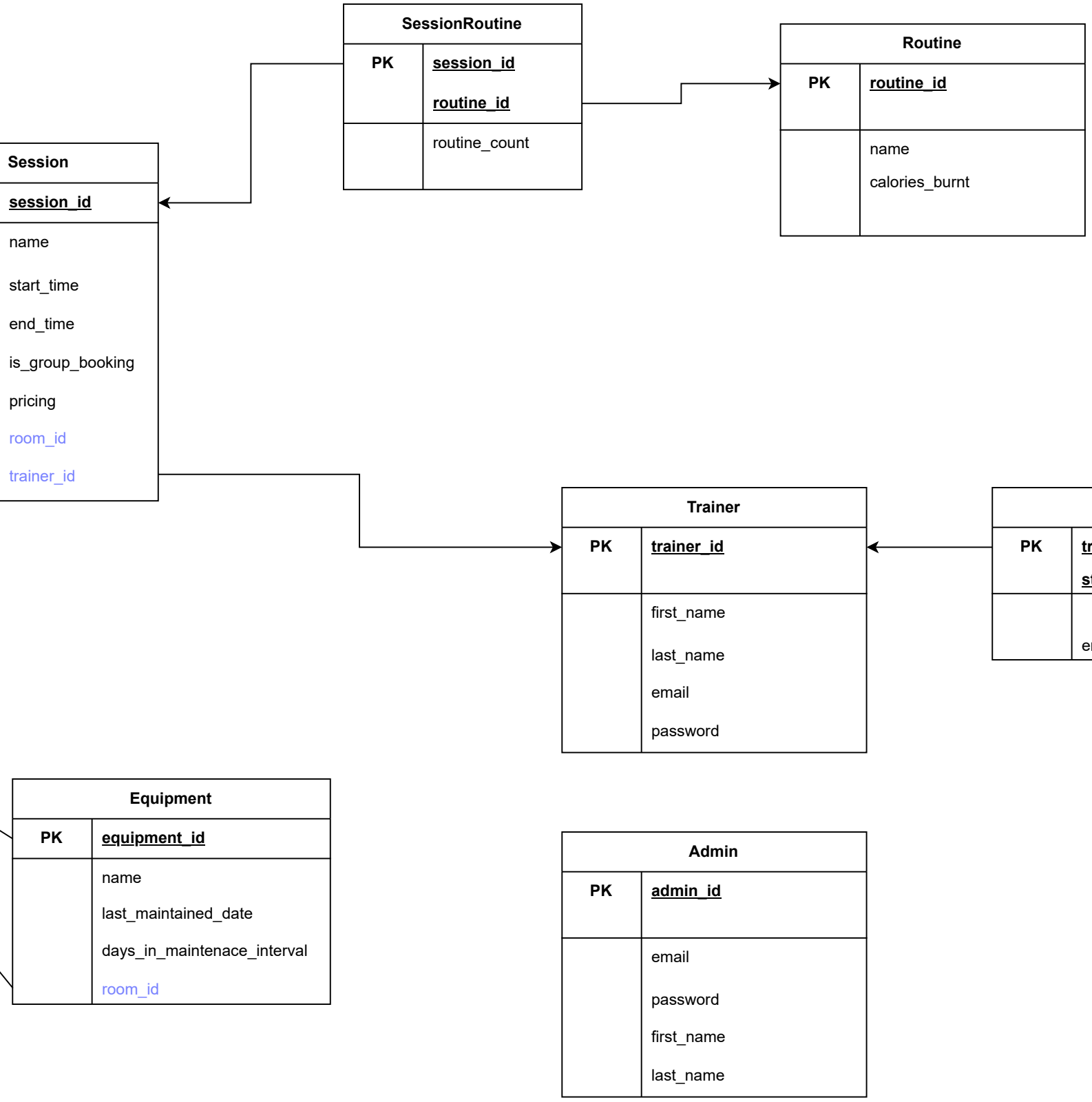
What if I have my schedule free from 8AM-5PM, and Member books slot from 9AM-10AM. Does the whole schedule slot become unusable, so someone cant book from 1PM-2PM? Probs not very user-friendly.

I assume Schedule is a weak entity and its primary keys are trainer_id, from and to.



I was considering having a "num of minute" attribute to track "how many minutes exercised" for achievements and what not. But I think there's a risk the data here may conflict with session start_time & end_time, so let's not do this.


WeightLog
PK
member_id
date
weight
Member
PK
member_id
first_name
last_name
email
password
goal_weight
goal_date
height
MemberSession
PK
member_id
session_id
has_paid_for
PK
MemberAchievement
PK
member_id
achievement_id
date
Achievement
PK
achievement_id
name
Room
PK
room_id
name
capacity


SessionRoutine
PK
session_id
routine_id
routine_count
Routine
PK
routine_id
name
calories_burnt
Session
session_id
name
start_time
end_time
is_group_booking
pricing
room_id
trainer_id
Trainer
PK
trainer_id
first_name
last_name
email
password
Sc
PK
traine
start_
end_ti
Equipment
PK
equipment_id
name
last_maintained_date
days_in_maintenace_interval
room_id
Admin
PK
admin_id
email
password
first_name
last_name

chedule
r_id **time**
me