ERD → DDL Mapping

1. Account Entity

DDL is taken directly from ERD
Primary key *account_id* is the identifier
Email must be unique from other accounts

2. Goal Entity + Account Relation

An account can $\{0..n\}$ goals
A goal must have exactly $\{1\}$ account
Leads to a $1 - N$ relationship, via the foreign key *account_id* in the goal table
ON DELETE CASCADE deletes the goal if its associated account is deleted

3. Health Metric Entity + Account Relation

An account can $\{0..n\}$ health metrics
A health metric must have exactly $\{1\}$ account
Leads to a $1 - N$ relationship, via the foreign key *account_id* in the health metric table
ON DELETE CASCADE deletes the health metric if its associated account is deleted

4. Room Entity

DDL is taken directly from ERD
Primary key *room_id* is the identifier

5. Booking Entity + Room & Trainer Relation

A room can have $\{0..n\}$ bookings
A trainer can have $\{0..n\}$ bookings
A booking can only have $\{1\}$ trainer and $\{1\}$ room
Leads to a $1 - N$ relationship for both room and trainer, both FKs in booking enforce this relationship

6. Registration (Associative Entity)

Many accounts can register for many bookings $M - N$ relationship
This $M - N$ relationship becomes a separate table with two FKs
Thus we have a registration table that has unique $(account\_id,\ booking\_id)$ combination preventing users from becoming double booked