Design Document for Minut -Booking System

Design Principles:

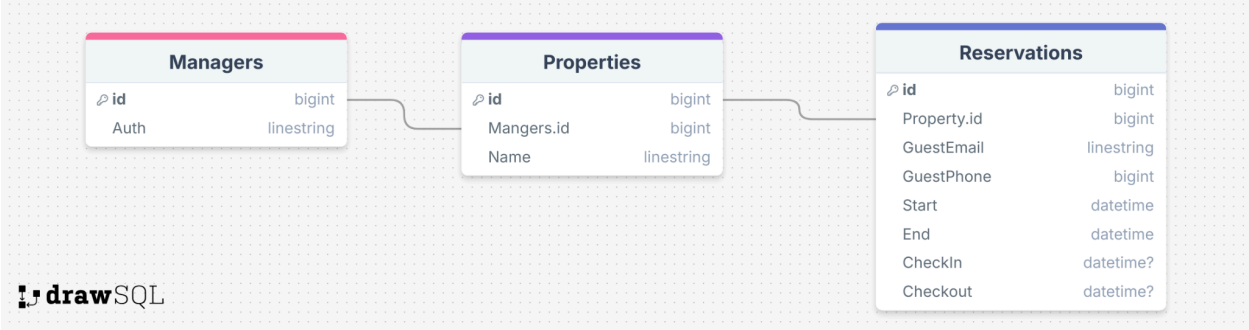
REST (Representational State Transfer) - Managers will interact with API via REST API server which responds with representational JSON objects

CRUD - All API endpoint follow one of Create, Read, Update or Delete

Technologies:

- Docker
  - For containerization of the application
- Typescript
  - For API backend
- Database (mySQL)
  - For persistent datastore managed by TypeORM

DB Tables:



Endpoints:

*Manager Authentication token required for all endpoints except create manager

- Create Manager
  - Params: None
  - Create row in “Managers”
  - Return Auth token
- Create Property
  - Params: AuthToken, property name
  - Validate: Name is unique
  - Create new Row in “Properties”
- Create Reservation
  - Params: AuthToken, propertyId, Guest Email, Guest Phone, Start & End
  - Validate:
    - Manager owns property
    - Property exists
    - Email & Phone format
    - Does not overlap with other reservations
    - Start < End

    - Return ReservationId
- Check In
    - Params: AuthToken, reservationId
    - Validate:
        - Manager owns property
        - Reservation exists
        - Start < Current time < End
        - No other reservations for property that are checkedIn but not checkedOut
    - Updates “Reservations.checkIn” with current time
- Check Out
    - Params: AuthToken, reservationId
    - Validate:
        - Manager owns property
        - Reservation exists
        - Reservation is checked In
        - If currentTime > End, proceed but return warning that this is a late checkout
    - Updates “Reservations.checkOut” with currentTime
- Get Properties
    - Params: AuthToken
    - Validate:
        - None
    - Return all properties owned by manager
- Get Reservations
    - Params: AuthToken, propertyId
    - Validate:
        - Manager owns property
        - Property exists
    - Return all reservations at property
- Delete Reservation
    - Params: AuthToken, reservationId
    - Validate:
        - Manager owns property
        - Reservation exists