PerSpection App

EDITED Design: Database

Section 1: Technology Choice

Technology: Object-Relational Database

The PerSpection app will allow users to build test inspections before official inspection. Completed inspections can be compared to official results. Users can have multiple inspections each with multiple inspection points. Each inspection point will take measurement values given by users.

The project will use an object-relational database (PostgreSQL) with the following tables.

- Users
- Inspections
- Points
- Measurements

This project will persist data in an object-relational data store because:

- Users can have infinite inspections.
- Inspections can have infinite inspection points.
- Points can have infinite measurements.
- Data changes from the points table will cascade to the inspections table.

Each User can have infinite inspections, so Users-to-Inspections relation is One-to-Many. Inspections table will take Users table “user_id” as FK.

Each Inspection can have infinite points, so Points-to-Inspections relation is Many-to-One. Points table will take Inspections table “Inspection_id” as FK.

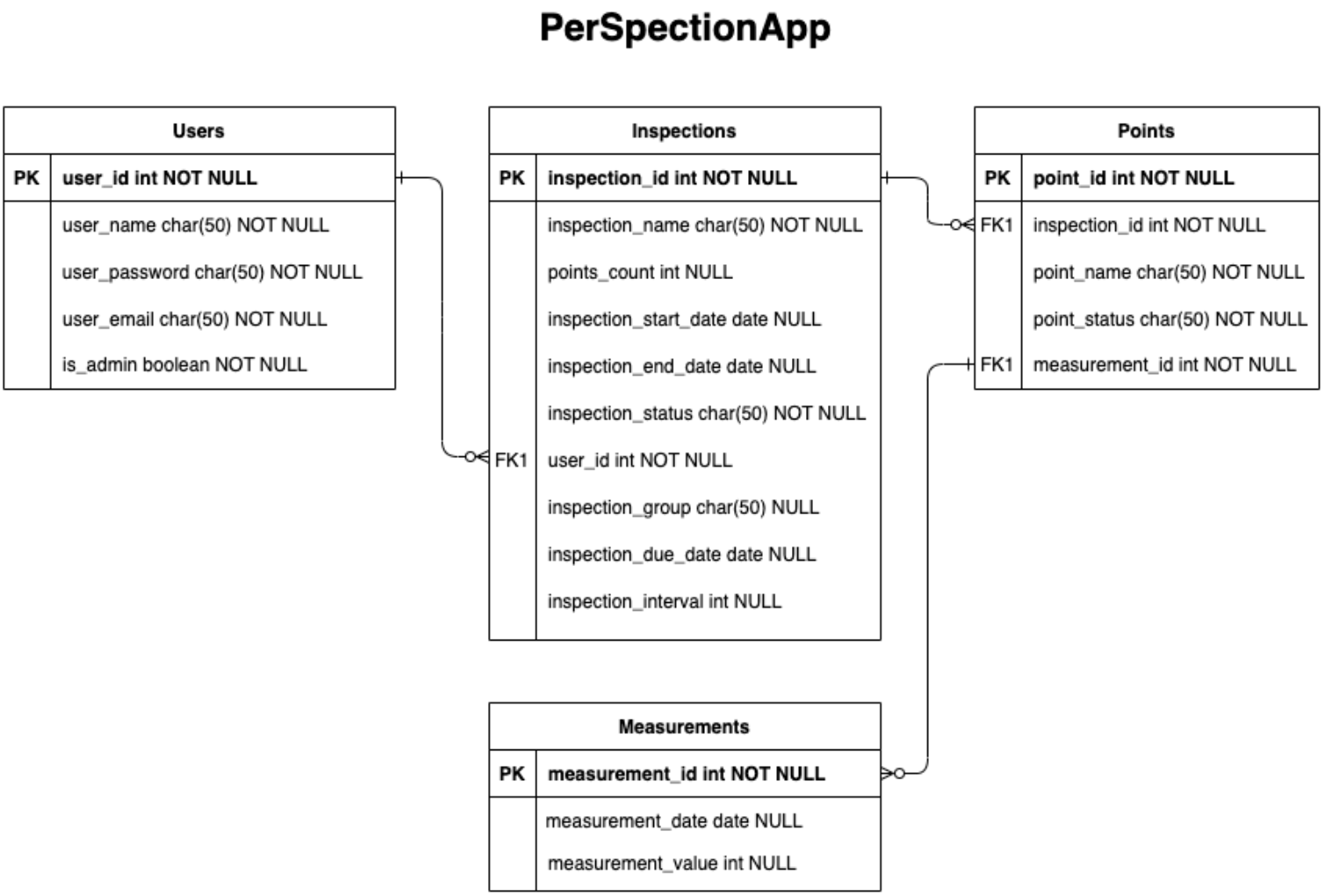
Each point can have infinite measurements, so Points-to-Measurements relation One-to-many. Points table will take “measurement_id” as FK.

Section 2: Tables Structure

The PerSpection app will use the following data structure:

EDITED

- Added “is_admin” to “Users” table.
- Added “inspection_group”, “inspection_due_date”, and “inspection_interval” to “Inspections” table.
- Added “Measurements” table.



Section 3: Contextualize Tables Roles

The PerSpection app will follow the Second Normal Form.

Persona Example Table Use:

Sarah Kitchen Manager

Users:	User will open the application and create a user profile. User will then create additional users with/without admin rights. Admin rights will automatically control who can access UI elements and navigate to pages.
Inspections:	User will create a list of inspections to be completed. The inspections will be assigned a user, given a group name, and assigned an expected due date. User will access reports based on user data, group data, and adherence data.
Points:	User will create inspection points required to complete each inspection. Measured point will automatically trigger cascading events based on point completion and values entered.
Measurements:	User will access reports based on collected measurement data.