

Architecture Draft

CSE2115 Software Engineering Methods Group 08b

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Component Diagram

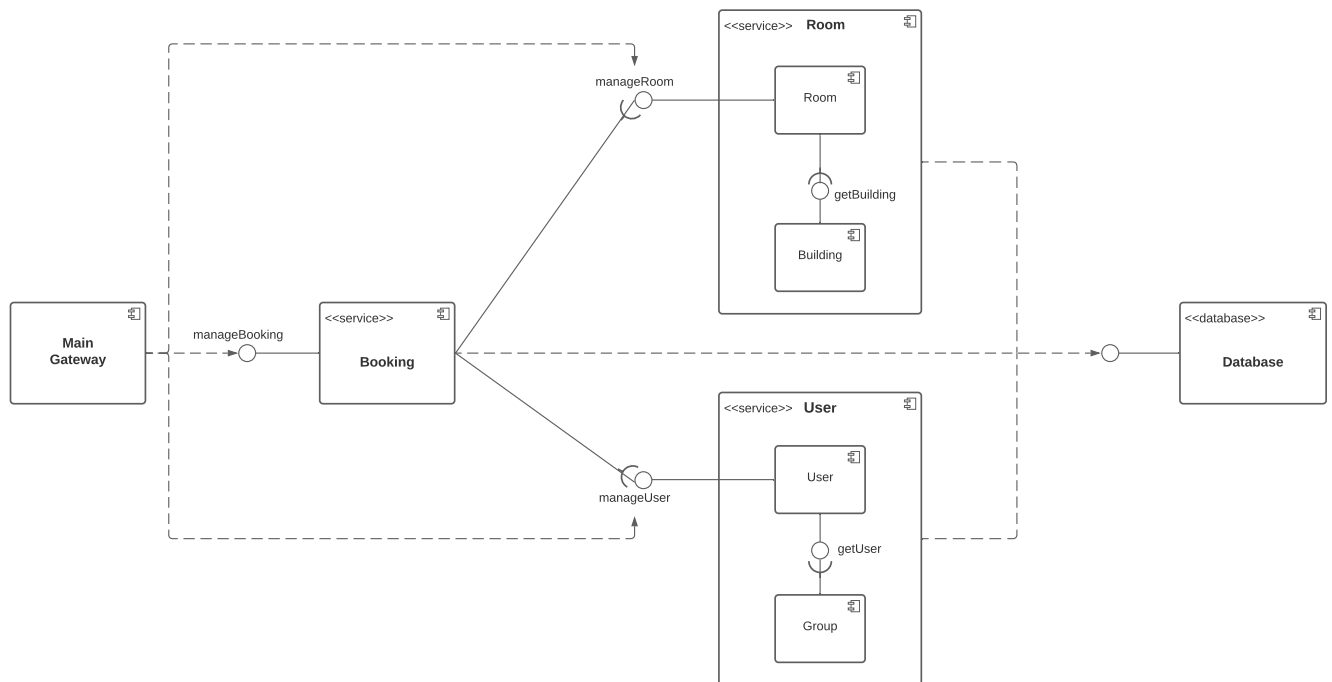


Figure 1: Component diagram showcasing interaction between microservices

Bounded contexts

Applying the Domain Driven Design approach, we identified the following bounded contexts:

- Users
 - In our application, we have different types of users: admin, secretary and regular user.
 - Within the users context, these types of users are modeled as the same entity(with different roles).
 - Within different contexts, these types of users can be mapped to different entities(E.g. in the booking context, users are either admins, secretaries or regular users).
 - Users can also be part of a group.
- Rooms
 - Rooms can be booked by users
 - Entities with a set of features on which they can be filtered.
 - Within all contexts, each room is modeled as the same entity(only one type).
- Buildings
 - Buildings host the rooms which can be booked.
 - They determine the opening/closing times of the rooms inside them.
 - Within all contexts, each building is modeled as the same entity(only one type).
- Bookings
 - Bookings provide the relationship between a user and the room they want to book.
 - They contain a list of users, a specific room and start/end times.
 - Within all contexts, each booking is modeled as the same entity(only one type).

Microservices

The four bounded contexts are mapped to three microservices, each with their own database:

- User Microservice: manages user data, is based on the users context
- Room Microservice: manages information about the rooms, combines the rooms and buildings contexts as they are directly related to each other
- Booking Microservice: manages bookings, is based on the bookings context