Enterprise Product FlipFit

Problem statement:

Design a UI and a backend system for a new enterprise application that LTI is launching, FlipFit. LTI is partnering up with gyms across Bangalore to enter into the fitness space. For the Beta launch the requirements are as follows:

- There are multiple centers in Bangalore.
- Each center has **n slots of an hour each**. For eg the Bellandur center has only 6 slots - 3 in the morning of **an hour each** from **6 am to 9 am** and similarly 3 in the evening from **6 pm to 9 pm.**
- The number of seats at each time-slot for a given center is fixed.
- For simplicity's sake you can assume that the slot info will be entered by the Admin only once.
- User can perform the following operations:
  - Register onto the platform
  - View the gym's availability/unavailability for a particular day and slot at a center
  - Book a workout for a user if seats are available in that time slot at that center

User stories:

1. View all centers will details for a given city
2. Successfully book a slot by a user in a center in a particular slot
3. If user books another gym in the same slot, the old booking should be removed
4. If a user books a slot which is already booked by another user, an error should be shown
5. Ensure that there is no scenario where we are over booking.

Bonus Stories:

- *View his/her plan basis day as input*
- *Cancel a workout booking*
- *Once the seats get filled up, there is a waiting list. Also notify waitlisted candidates that he/she has been promoted*
- *Return the nearest time slot for the same date/workout/center combination, keeping in mind his other booked slots*

General Guidelines

- The parameters below to be taken care about:
  - Running UI and backend integration on Fk Platform
  - Use of microservices architecture
  - Use of Databases for storing information about centers and booking. **No in-memory storages**
  - Modularity and Interfaces
  - Sonar static analysis passed for the code

- Metrics & logs emitted out of code
- Intuitive UI interface
- Bonus features implemented.
- Git Commits SDLC - PR, PR review
- Confluence Documentation
- Presentation :)