Technical Design
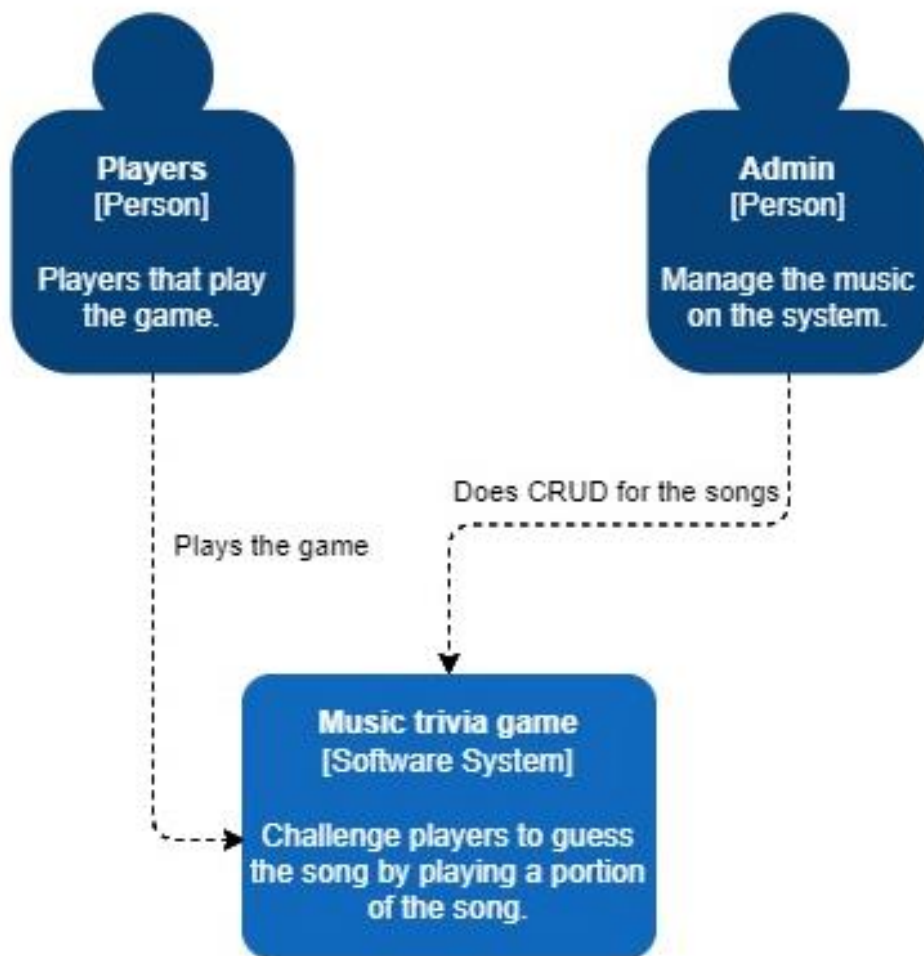
Name: Tony Jiang

Semester: 6
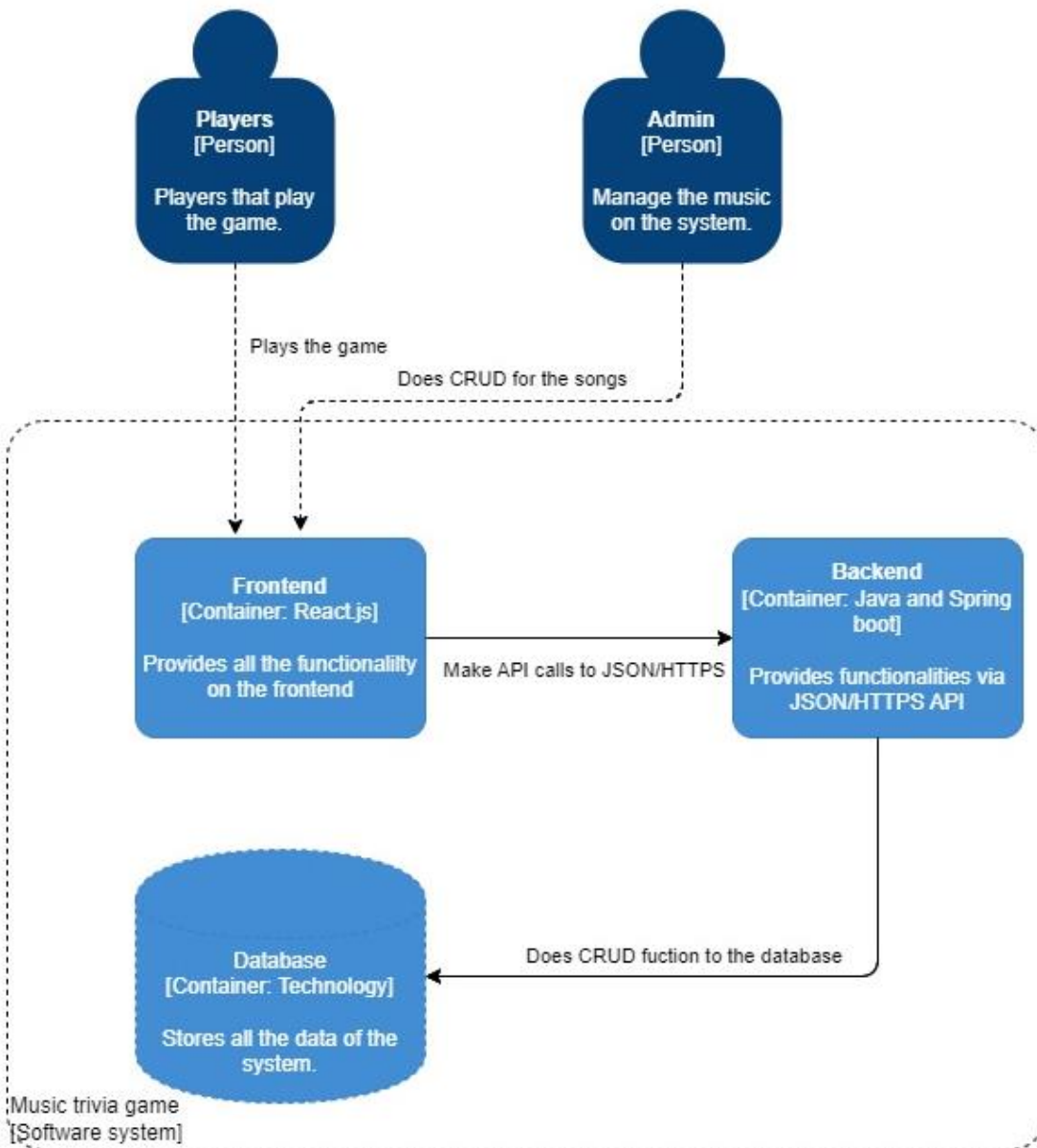
Project: Music trivia game

System Architecture
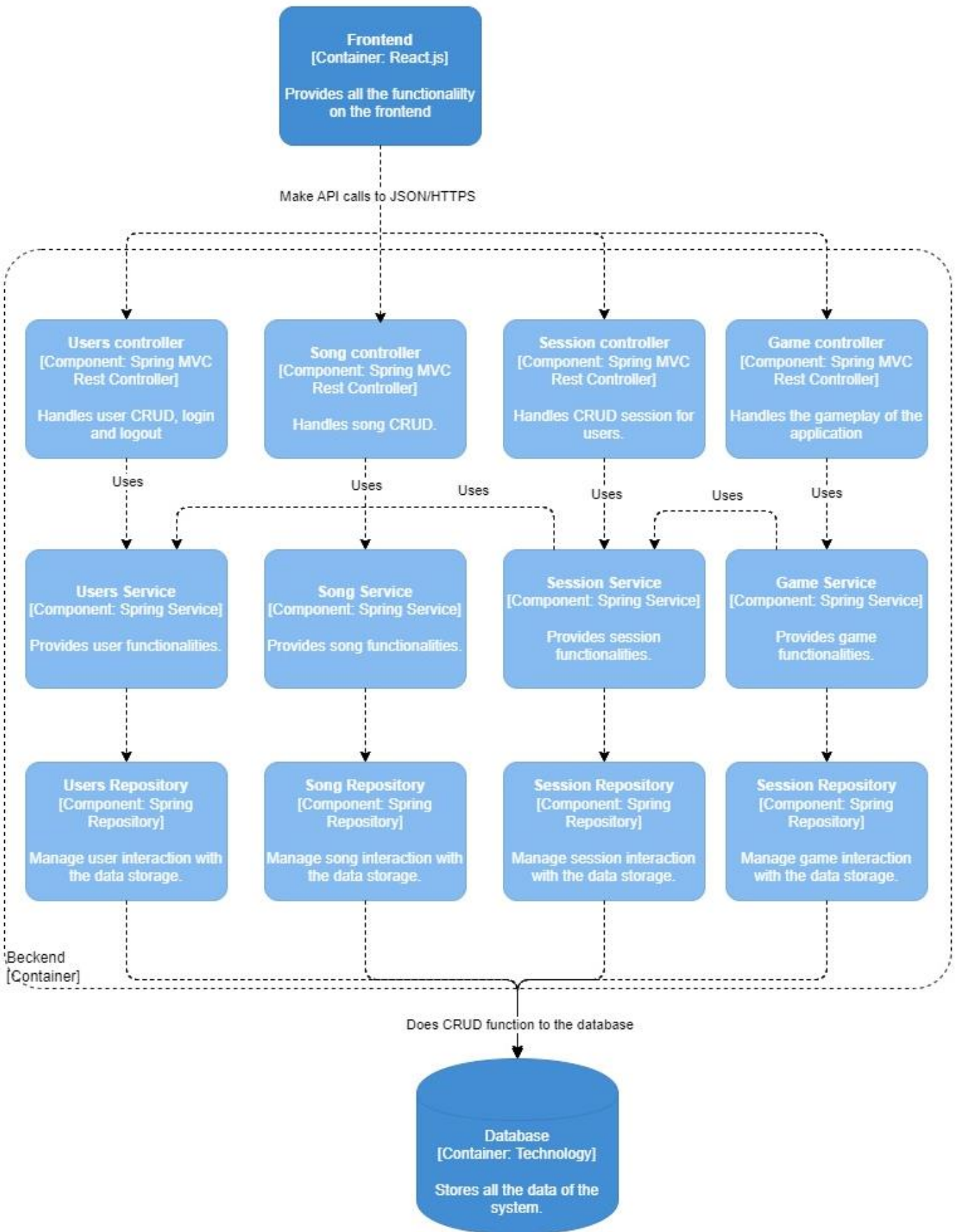
Level 1: System Context

Level 2: Containers

Level 3: Component

Frontend
[Container: React.js]

Provides all the functionality on the frontend

Make API calls to JSON/HTTPS

Users controller
[Component: Spring MVC Rest Controller]

Handles user CRUD, login and logout

Song controller
[Component: Spring MVC Rest Controller]

Handles song CRUD.

Session controller
[Component: Spring MVC Rest Controller]

Handles CRUD session for users.

Game controller
[Component: Spring MVC Rest Controller]

Handles the gameplay of the application

Uses

Uses

Uses

Uses

Uses

Uses

Users Service
[Component: Spring Service]

Provides user functionalities.

Song Service
[Component: Spring Service]

Provides song functionalities.

Session Service
[Component: Spring Service]

Provides session functionalities.

Game Service
[Component: Spring Service]

Provides game functionalities.

Users Repository
[Component: Spring Repository]

Manage user interaction with the data storage.

Song Repository
[Component: Spring Repository]

Manage song interaction with the data storage.

Session Repository
[Component: Spring Repository]

Manage session interaction with the data storage.

Session Repository
[Component: Spring Repository]

Manage game interaction with the data storage.

Beckend
[Container]

Does CRUD function to the database

Database
[Container: Technology]

Stores all the data of the system.

Level 4: Code