CookIt, a Recipe-Sharing Social Media App

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Why CookIt?

- While there are recipe sharing websites, many of them are very dense and more akin to an article site that isn't meant to be browsed
- The sites are not very interactive and most of the recipes are filled with too much information that is not worth reading
- Most existing cooking theme sites with do not encourage discovery, and are recipe just a search engine
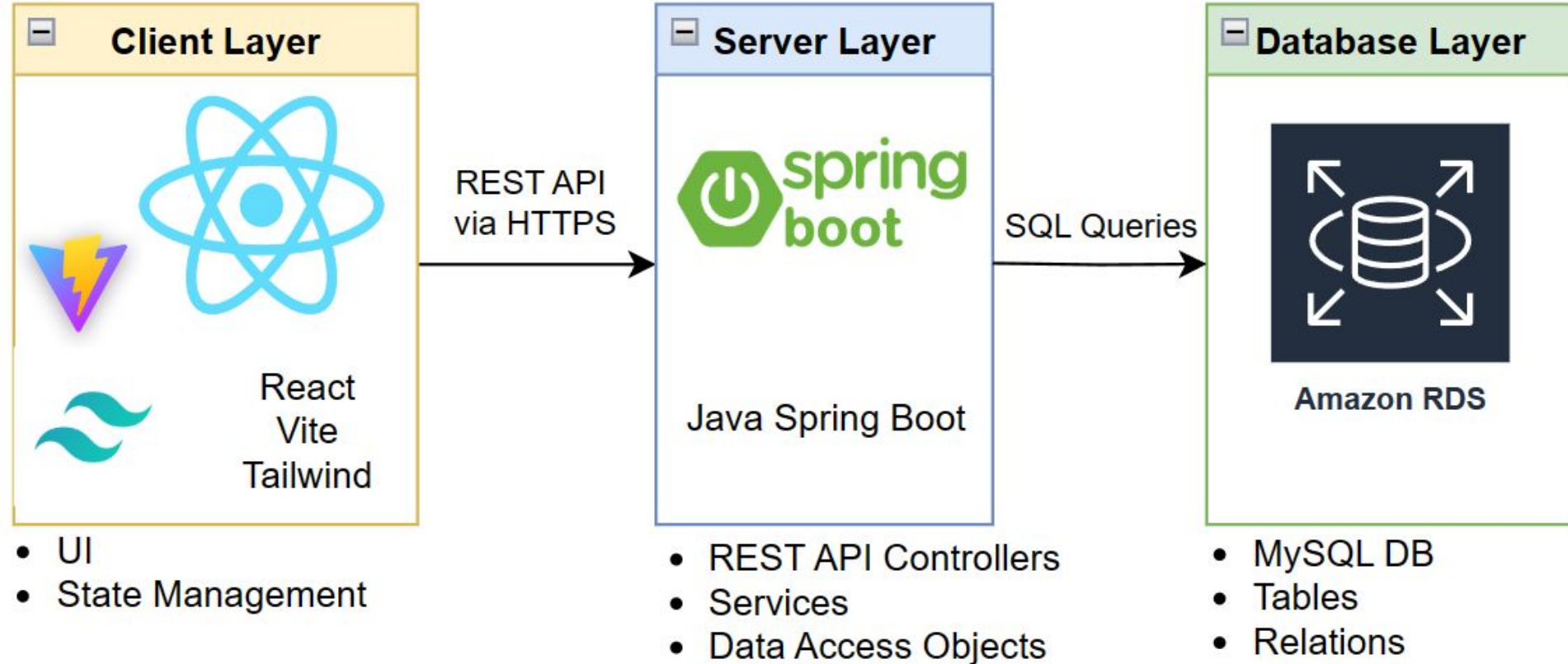
Our Application

- CookIt is a recipe sharing social media app that allows users to interact with each other and discover popular recipes

- We made an interactive app that keeps recipes simple and easy to digest so that browsing recipes can become something fun to do

- The networking aspect brings joy and inspiration to the Cooking process

Functionality

- Users can post their recipes and images along with other useful information

- Users can like, comment, rate, and bookmark each other's posts

- Users can view a feed that shows popular posts

- Users can follow the recipe-creators they find interesting

- Users can search for recipes using tags, ingredients, and recipe names

CookIt Architecture Diagram

Client Layer

React
Vite
Tailwind

- UI
- State Management

REST API via HTTPS

Server Layer

Java Spring Boot

- REST API Controllers
- Services
- Data Access Objects

SQL Queries

Database Layer

Amazon RDS

- MySQL DB
- Tables
- Relations

Major Design Decisions

- Database was designed around two main entities: Users and Posts
- In the backend, we used native SQL queries to retrieve data from the database
- We also used the DTO (Data Transfer Object) design pattern to transfer data between the application layers
- We chose to index on Post's name column to accelerate the query when searching for posts

Demo

Challenges

- Balancing Optimization and Normalization

- Complex Technological stack with tight schedule

- Minimizing response scope for faster loading times

- Synchronizing user state and interactions between Client and Server

Future Improvements

- Improvements to searching algorithms and adding more ways to search

- Implementing video embedding

- Better formatting of the recipes and posts

- Optimize queries for faster responses

- Implement Caching for popular post