ShuttleQL

SE464 Project Demonstrations

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Overview

Problem

- Hundreds of student playing at UW Badminton club
- Bad club management system
    - crowded line ups between games
    - manual error prone matchmaking
    - inefficient communication between execs and members

Solution

ShuttleQL

- Mobile web optimized player dashboard
- Web based admin management dashboard

Functional Requirements

Player Dashboard

- match checker
- announcement
- player profile

Admin Management Dashboard

- remote session management
- player registeration
- player checkin / checkout
- user management
- announcement broadcast
- match overrides

Non-Functional Requirements

Portability

- Player dashboard must work on both mobile chrome and safari browser
- Admin management dashboard must work on web chrome and safari browser

Efficiency

- Linear time matchmaking algorithm
- Able to compute matches for all club members in less than 1 second

Evolvability

- Court numbers can be changed through a config file
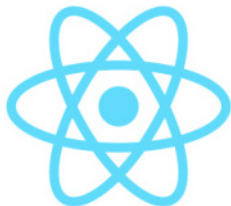- Court can be specified as Single or Doubles game type
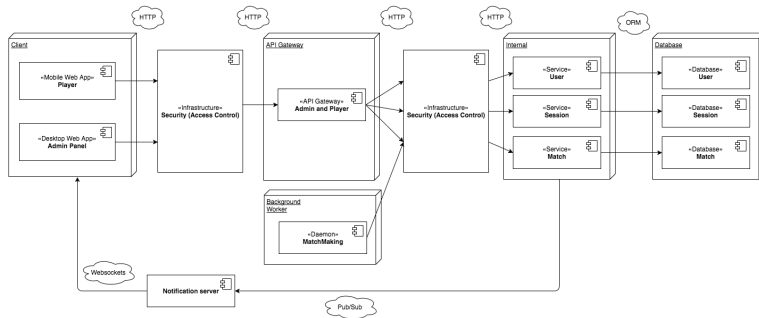
Unfinished Requirements

Dependability

- Micro services are difficult to coordinate
- Deploying is expensive due to so many services

Architecture

Technologies

Architecture Diagram

Challenges

Challenges

- learning new technologies (scala, react)
- managing tasks
- micro services are difficult to deploy
- lack of time