



## **Sprint Planning Document (Sprint 3)**

### **Sprint Goal Backlog (Sprint 3)**

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# High-level Project Overview

## Project Mission:

- Create an engaging platform where users can easily upload and manage custom chess bots. Teachers will then use this platform to run tournaments and get back meaningful statistics on student bots.

## Problems We Are Solving:

- Users currently lack an efficient platform to upload, manage, and compete with their custom chess bots.
- There is no standardized way to easily run and manage chess bot tournaments.
- Limited accessibility and organization of chess tournament results and bot performance data.

## Project Overview (High-Level Features):

- Web Application:
  - OAuth Authentication: Users log in via OAuth providers (Google).
  - Bot Management: Users can upload, manage, update, or delete their chess bots.
  - Tournament Management: Teachers can manage, update, or delete student chess bots.
  - Teachers can create and run round robin tournaments using any number of student bots.
  - Leaderboards & Logs: Generate tournament leaderboards and detailed game logs.
  - Database Integration: Cloud-hosted PostgreSQL database to store user, bot, and tournament data.

# Sprint 3 Planning

## Sprint 3 Goals:

1. Teacher CRUD.
2. Update student features to be more restricted (students can't run tournaments).

3. Remove redundant features/adding frontend accessibility options: (remove unnecessary features as well as adding additional QOL features, easier management on different views, fixing poorly designed views).
4. Multithreaded/asynchronous tournament matches for faster runtime.
5. Fully functioning leaderboard system
6. Admins can see old tournament logs
7. Convert frontend to React
8. Hosting

## **Sprint 3 Deliverables:**

- **Teacher CRUD:**

- Assigned: Sebastian
- Teachers can manage, update, or delete student chess bots as well as being able to remove students.

- **Update student features:**

- Assigned: Sebastian
- Limit student features to just upload, activate, archive.

- **Remove redundant features/adding frontend accessibility options:**

- Assigned: Sebastian
- Remove unnecessary or redundant features.
  - Removed “classes” feature
  - Removed “password/account management”
  - Removed excessive ways to get to the tournament creation
  - Removed “cancel tournament” feature. It was redundant due to “delete tournament”
- Add more quality of life features
  - Added a way to bulk select/upload bots to a tournament.
  - Clicking “Dashboard” from tournament view takes you back to tournament section of teacher dashboard rather than defaulting to student section of teacher dashboard.

- **Multithreaded/asynchronous tournaments**

- Assigned: Orion
- Potentially use something like Celery to run bots asynchronously for a fast runtime.

- **Leaderboard system/Scores**

- Assigned: Orion and Sebastian
- Orion:

- View logs and download PGNs
  - Sebastian:
    - Show scores of participants
    - Implement leaderboard section of the teacher dashboard which includes all basic leaderboard stats.
- **Teachers can revisit old tournament logs**
  - Assigned: Orion
  - Teachers can revisit old tournaments and get their logs
- **Convert frontend to React**
  - Assigned: Tejas
  - Update current frontend to reflect changes made in backend
  - During refactoring of project, we focused towards using html with bootstrap instead for backend production
    - Moving from bootstrap HTML to react frontend
- **Docker and Hosting**
  - Assigned: Orion
  - Get working docker container
    - Working with Celery, Redis, and Django. Configured PSQl connection alongside Django and Docker
  - Host our application
    - Utilized Google Cloud Run to host application
      - Used previously build docker container
      - Testing with different CPU, Memory configurations for optimal performance with Bot Multithreading