

Soccer Team Management System - Match Metrics

Will Dwight, Zhuocheng Gan, Cacie Sonomura

ICS 496, Spring 2024
Information and Computer Sciences Department - University of Hawai‘i at Mānoa

Sponsor: Peter-Michael Seidel
FC Hawai‘i

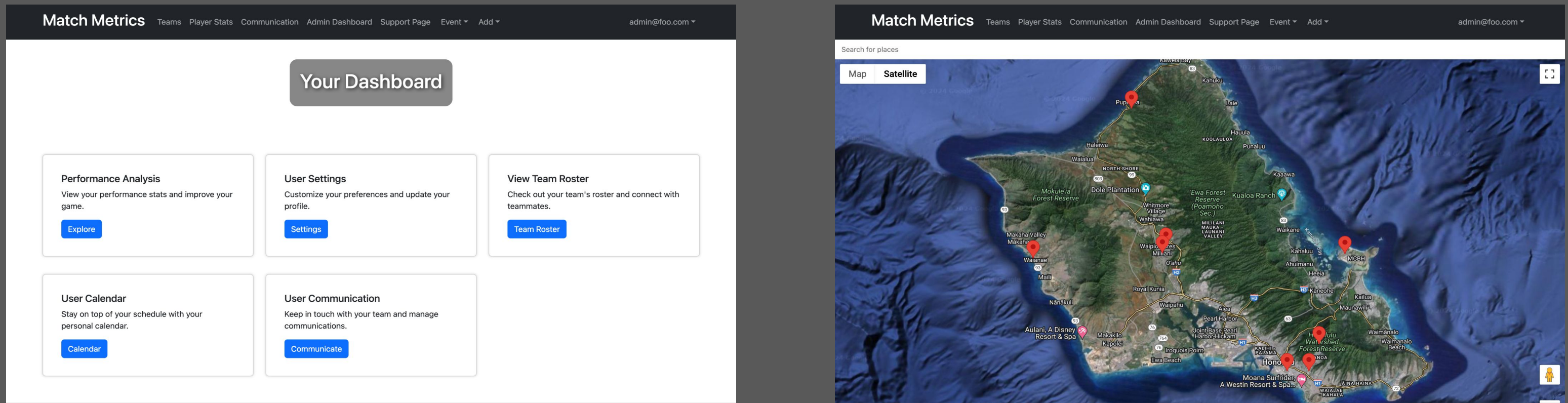
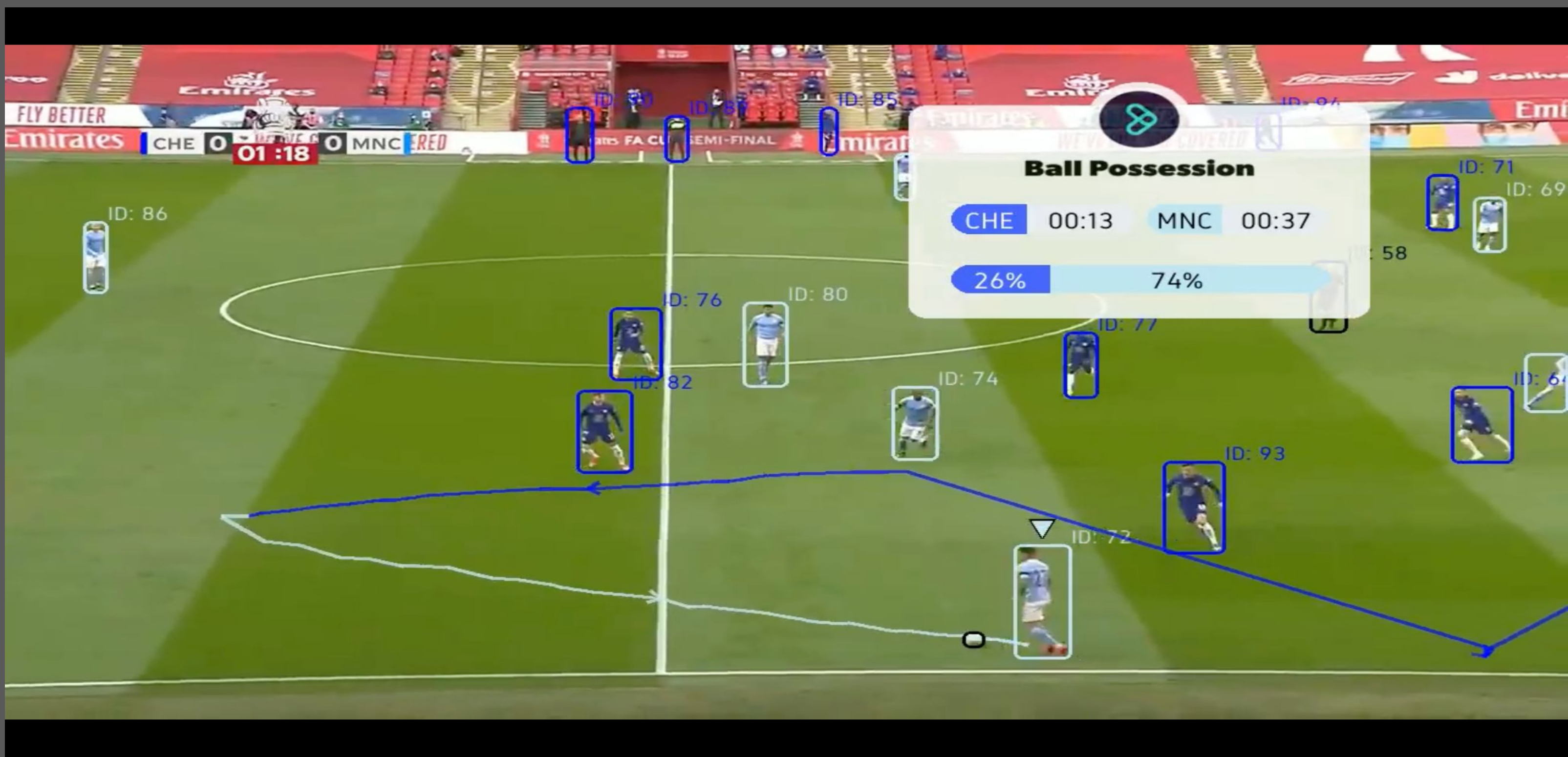


Introduction:

Problem: Managing a soccer team can be messy and unorganized due to relying on multiple tracking sites

Solution: Match Metrics aims to make the management of soccer teams and the access of player statistics easier for all users by centralizing information into one place

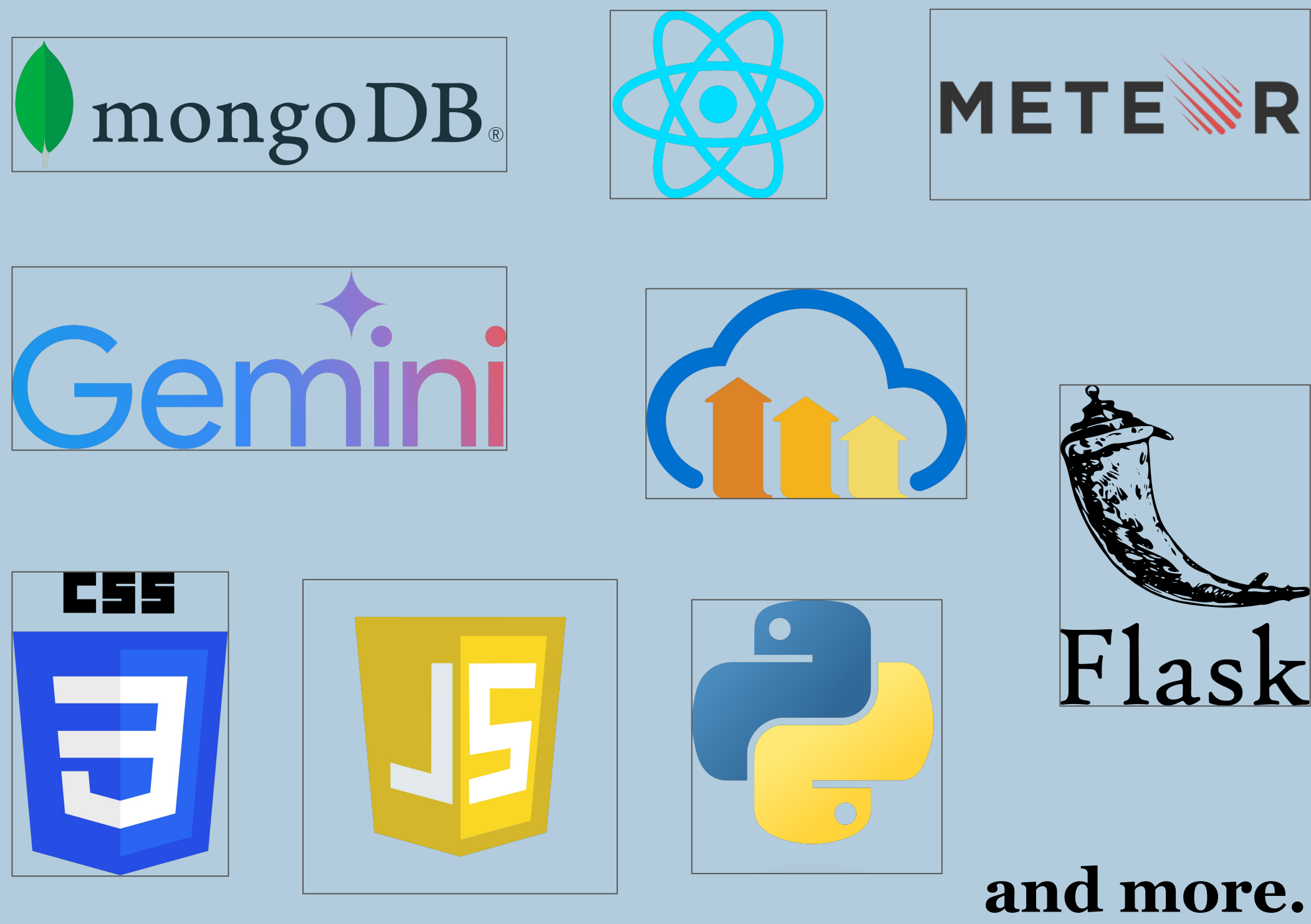
Images:



Structure and Methodology:

- **User and Manager Accounts:** User accounts have the lowest level authority on the site. They are only able to view information from their respective team. Manager accounts, who are one level above users, are able to edit team information such as player statistics. This includes adding new player(s) and editing the number of goals and assists made by each player
- **Admin Accounts:** An admin account is the highest level of authority on the service. Only admins can view and edit all teams and accounts made for the site in addition to the main features of manager accounts. They are also able to promote regular user accounts to managers if they manage a valid team
- **Team met with the sponsor** once a week to report progress and address any concerns. Responsibilities were evenly split among all team members, with progress being recorded on the project's GitHub repository.

Tech Stack:



Issues:

- Determining if we need to rely on a third-party video analysis software
- Underestimating the difficulty on implementing certain features that stalled the implementation of other features

Next Steps:

- Testing the application with one soccer team and getting feedback on what additional features could be added or any improvements that could be made to already existing ones

Accomplishments:

- **Video Analysis** - Coaches or team managers are able to upload videos taken at soccer games and upload it for further analysis.
- **PDF Reader** - The PDF reader collects data from PDFs of team rosters or stat sheets and feeds it into Google Gemini to determine the desired content since formatting is not consistent on all documents
- **Dashboard** - After users login, they will be directed to a dashboard that organizes all the different features of the site onto one page and allows users easy access to other features
- **Interactive Map and Calendar** - Users are able to view where events are happening across the island on an interactive map as well as viewing when those events are happening on a calendar