Capstone Project Outline

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Introduction

This section will provide background on TrackMan and the TrackMan API. It will explain the current problem: data acquisition is slow and manual, which limits efficiency for coaches and analysts. I will motivate why solving this matters and clearly define the scope of the project.

Proposed Solution

Here I will describe the overall approach:

- Obtain TrackMan API access

- Extract and clean JSON data from the API

- Build a PostgreSQL database to store the cleaned data

The narrative will explain why these choices make sense (e.g., reproducibility, speed, scalability).

Application Development

This section will cover how the PostgreSQL database is linked to a Streamlit app. The app will allow users to visually query data and generate reports. I will describe the design choices, usability considerations, and intended audience (coaches, players, analysts).

Automated Scouting Reports

This section will detail how the data pipeline feeds into automated scouting report generation. The narrative will explain the format of these reports, the key statistics included, and how this improves upon the current manual process.

Conclusion and Future Work

Finally, I will summarize the project contributions, highlight the practical value for the Pomona-Pitzer baseball program, and outline possible extensions (e.g., integrating video, advanced analytics, scaling to other teams).