

CrickVision

Project Team

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Contents

| | | |
|----------|---|-----------|
| 1 | Introduction | 1 |
| 1.1 | Problem Statement | 1 |
| 1.2 | Scope | 2 |
| 1.3 | Modules | 2 |
| 1.3.1 | Module 1 | 2 |
| 1.3.2 | Module 2 | 2 |
| 1.3.3 | Module 3 | 3 |
| 1.3.4 | Module 4 | 3 |
| 1.4 | User Classes and Characteristics | 4 |
| 2 | Project Requirements | 5 |
| 2.1 | Use-case/Event Response Table/Storyboarding | 6 |
| 2.1.1 | Use Case Diagram | 6 |
| 2.1.2 | High-Level Use Cases | 6 |
| 2.1.3 | Extended Use Cases | 9 |
| 2.2 | Functional Requirements | 14 |
| 2.2.1 | Module 1: Talent Identification and Scouting | 14 |
| 2.2.2 | Module 2: Strategic Planning and Team Selection | 14 |
| 2.2.3 | Module 3: Performance and Welfare Managements | 14 |
| 2.2.4 | Module 4: Franchise and Auction Management | 15 |
| 2.2.5 | Module 5: Centralized Intelligence | 15 |
| 2.3 | Non-Functional Requirements | 15 |
| 2.3.1 | Reliability | 15 |
| 2.3.2 | Usability | 16 |
| 2.3.3 | Performance | 16 |
| 2.3.4 | Security | 16 |
| 2.4 | Domain Model | 17 |
| 3 | System Overview | 19 |
| 3.1 | Architectural Design | 19 |
| 3.1.1 | Module 1: Finding and Evaluating Players | 19 |
| 3.1.2 | Module 2: Match Preparation and Team Selection | 19 |
| 3.1.3 | Module 3: Long-Term Team and Auction Management | 20 |

| | | |
|-------------------|--|-----------|
| 3.1.4 | Module 4: Central Dashboard and Integration | 20 |
| 3.1.5 | Module Connections | 20 |
| 3.1.6 | Modular Decomposition | 21 |
| 3.2 | Design Models | 23 |
| 3.2.1 | Activity Diagram | 23 |
| 3.2.2 | Class Diagram | 24 |
| 3.2.3 | Sequence Diagram | 25 |
| 3.2.3.1 | Log In Sequence Diagram | 27 |
| 3.2.3.2 | Executive Dashboard Sequence Diagram | 27 |
| 3.2.3.3 | Scouting Report Sequence Diagram | 28 |
| 3.2.3.4 | High-Potential Players Sequence Diagram | 28 |
| 3.2.3.5 | Justify Player/Team Selection Sequence Diagram | 29 |
| 3.2.3.6 | Get Recommendations Sequence Diagram | 29 |
| 3.2.3.7 | Match Player to Role Sequence Diagram | 30 |
| 3.2.3.8 | Simulate Auction Sequence Diagram | 30 |
| 3.2.3.9 | Analyze Bowling Partnership Sequence Diagram | 31 |
| 3.2.3.10 | Track Form and Fatigue Sequence Diagram | 31 |
| 3.3 | Data Design | 32 |
| References | | 33 |

List of Figures

| | | |
|------|--------------------------------|----|
| 2.1 | Use Case | 6 |
| 2.2 | Domain Model | 17 |
| 3.1 | Initial Architecture | 22 |
| 3.2 | Final Architecture | 22 |
| 3.3 | Activity Diagram | 23 |
| 3.4 | Class Diagram | 24 |
| 3.5 | Sequence Diagram | 26 |
| 3.6 | Use Case 1 | 27 |
| 3.7 | Use Case 2 | 27 |
| 3.8 | Use Case 3 | 28 |
| 3.9 | Use Case 4 | 28 |
| 3.10 | Use Case 5 | 29 |
| 3.11 | Use Case 6 | 29 |
| 3.12 | Use Case 7 | 30 |
| 3.13 | Use Case 8 | 30 |
| 3.14 | Use Case 9 | 31 |
| 3.15 | Use Case 10 | 31 |
| 3.16 | Data Design | 32 |

List of Tables

| | | |
|------|--------------------------|----|
| 2.1 | UC1 | 6 |
| 2.2 | UC2 | 7 |
| 2.3 | UC3 | 7 |
| 2.4 | UC4 | 7 |
| 2.5 | UC5 | 7 |
| 2.6 | UC6 | 7 |
| 2.7 | UC7 | 8 |
| 2.8 | UC8 | 8 |
| 2.9 | UC9 | 8 |
| 2.10 | UC10 | 8 |
| 2.11 | Extended: UC1 | 9 |
| 2.12 | Extended: UC2 | 9 |
| 2.13 | Extended: UC3 | 10 |
| 2.14 | Extended: UC4 | 10 |
| 2.15 | Extended: UC5 | 11 |
| 2.16 | Extended: UC6 | 11 |
| 2.17 | Extended: UC7 | 12 |
| 2.18 | Extended: UC8 | 12 |
| 2.19 | Extended: UC9 | 13 |
| 2.20 | Extended: UC10 | 13 |

Chapter 1

Introduction

This document serves as a comprehensive proposal for CrickVision. It is a web-based application designed to revolutionize cricket strategy, talent identification, and team management. It outlines the problem facing the Pakistan cricket ecosystem and provides details on how CrickVision provides an innovative data-driven solution. The proposal focuses on its objectives, its core functionalities, technical approach, and the impact that it is expected to have on a large scale in modern cricket. The background of this system lies in the growing complexity and increasing data in contemporary cricket, where traditional intuition-based decision making is increasingly insufficient to maintain competitiveness. CrickVision continues to bridge this gap by integrating advanced data analytics and machine learning to deliver actionable prescriptive insights.

1.1 Problem Statement

Cricket coaches, selectors, and franchise managers currently operate within a broken ecosystem, relying heavily on basic statistical tools, disparate data sources, and subjective intuition for taking high-stake decisions. All of this leads to the problem of inefficient strategies, biased player selections, and missed opportunities for deserving players. The lack of integrated workload management tools contributes to preventable injuries, sidelining key players for extended periods and costing teams valuable performance. There is no single, integrated platform that effectively uses machine learning to translate complex, raw data into clear, actionable insights from talent identification and strategic planning to player welfare and financial management. The absence of these resource makes it to rely on human interpretation of vast datasets, which is slow, prone to cognitive biases and hinders a teams ability to achieve a certain performance.

1.2 Scope

CrickVision is precisely defined to deliver a comprehensive, web-based solution for cricket management, focusing on transforming raw data into meaningful insights. A core component of the scope involves pre-match opponent analysis, designed to generate tactical blueprints and identify exploitable weaknesses. A significant aspect of the project is the auction simulation tool which will help the franchise managers to optimize squad and financial investments. Explicitly out of scope for this project are live ball-by-ball data streaming, wearable biometric fatigue tracking, direct financial auction transactions, social media integration and video analysis tools. This application does not include captain selection as it just focuses on giving recommendations and justifications.

1.3 Modules

1.3.1 Module 1

This module focuses on player evaluation, discovery and the justification of selection decisions. It utilizes data to identify high potential players and provides valid reasoning for squad composition.

1. ML Data prep: This involves gathering and preprocessing datasets from different sources to prepare them for machine learning models.
2. Automated Scouting Report: It automatically creates comprehensive, data-driven scouting reports, highlighting opponent strengths, weaknesses and key tactical insights thereby saving significant manual effort
3. Data Driven Domestic Talent Identifier: This involves building machine learning models that analyze various performance to identify promising young talent.

1.3.2 Module 2

This module provides tools for pre-match planning and in-game performance analysis, assisting coaching staff in optimizing team strategies and creating Playing XI.

1. Role Suitability Predictor: It involves creating a predictive model that recommends players best suited for specific roles based on their skill sets, historical performance in similar situations and prevailing match conditions.

2. Virtual Team Selector: It is based on user input, generates data-backed pre-match strategies. including an optimal playing XI and tactical game plans.
3. Selection Justification Generator: It focuses on concise and data-supported summaries that provide reasoning for a players inclusion or exclusion from squad, fostering transparency and accountability in selection processes.

1.3.3 Module 3

It supports long-term investment, team management and financial planning, offering tools for player welfare and strategic auction preparation.

1. Bowling Partnership Synergy Score: It involves developing a unique analytical module that quantifies the combined effectiveness of bowling pairs, assessing their ability to build pressure and take wickets.
2. Form and Fatigue Tracker: It focuses on creating a visual that tracks players recent performance trends alongside their physical workload.
3. Auction Simulator: It allows franchise managers to model various auction scenarios on historical PSL data and optimize bidding strategies to build a balanced team.

1.3.4 Module 4

It is a dashboard that acts as the central brain, integrating insights from all other modules to provide holistic, actionable advice and a single point of access.

1. Executive Dashboard: It is the central brain that synthesizes insights from all other modules, offering integrated, context-aware recommendations and alerts to guide strategic decision making.
2. UI Build and Merge: It involves integrating frontend and backend to ensure seamless data flow between features.
3. System Check and Tuning: It is a comprehensive testing phase including unit tests for ML models, integration tests for interactions between modules and performance evaluation.

1.4 User Classes and Characteristics

Identify the various user classes that you anticipate will use this product, and describe their pertinent characteristics.

| User class | Description |
|-----------------|---|
| Analyst | An Analyst is a statistics or data science specialist working for the sports board. They use the platform for investigating player performance, generating reports, proposing team selection and then presenting it in front of coaches. Analysts need advanced filter, query frequently to annotate or compare across matches. They often provide an extensive feedback for each player. |
| Coach | Coaches are responsible for tactical and strategic decisions. There may be multiple coaches for batting and bowling using the system primarily before the match. They review dashboards, player fatigue and suggestions for Playing XI. They require concise summaries, clear visuals and recommendations for each player or teams game-to-game data. |
| Player | Players view their stats, workloads and performance metrics through their own private dashboard. They generally use it rarely so they would want clear, simple charts and actionable alerts rather than raw data |
| Executive Owner | They generally seek high-level summaries and visual trends rather than technical detail. About 3-8 people in each organization may use the system mainly for dashboard. They need clear risk/success signals displayed. |

Chapter 2

Project Requirements

This chapter describes the functional and non-functional requirements of the project.

2.1 Use-case/Event Response Table/Storyboarding

2.1.1 Use Case Diagram

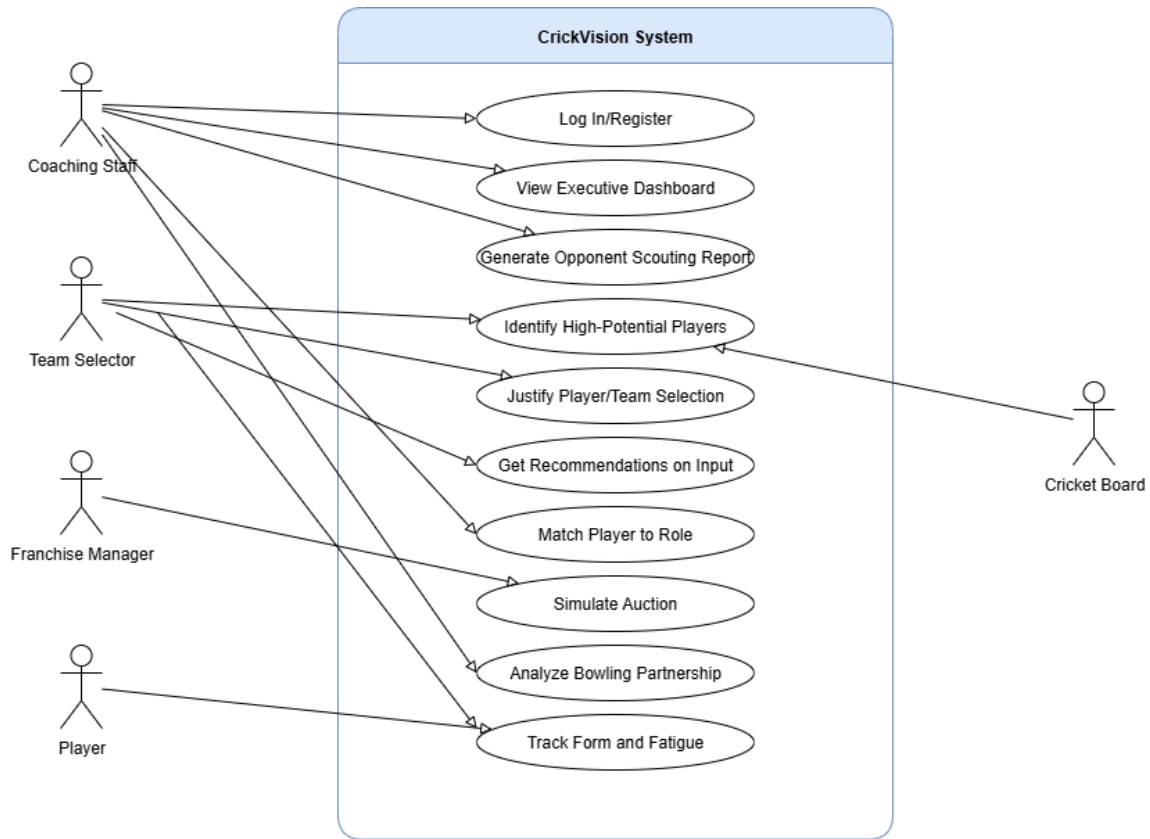


Figure 2.1: Use Case

2.1.2 High-Level Use Cases

| | |
|-------------|---|
| Use Case ID | UC1 |
| Use Case | Login/Register |
| Actors | Coaching Staff, Team Selector, Franchise Manager, Player |
| Description | It authenticates to use the system or registers for a new account |

Table 2.1: UC1

| | |
|-------------|--|
| Use Case ID | UC2 |
| Use Case | View Executive Dashboard |
| Actors | Coaching Staff, Team Selector, Franchise Manager |
| Description | A high-level user views a consolidated, visual summary of key team and player performance metrics. |

Table 2.2: UC2

| | |
|-------------|---|
| Use Case ID | UC3 |
| Use Case | Generate Opponent Scouting Report |
| Actors | Coaching Staff |
| Description | The coaching staff generates a detailed tactical report on an opposing team, highlighting their strengths and weaknesses. |

Table 2.3: UC3

| | |
|-------------|---|
| Use Case ID | UC4 |
| Use Case | Identify High-Potential Players |
| Actors | Team Selector, Cricket Board |
| Description | They use the system's predictive models to find promising young talent which is then shared with the cricket board. |

Table 2.4: UC4

| | |
|-------------|--|
| Use Case ID | UC5 |
| Use Case | Justify Player/Team Selection |
| Actors | Team Selector |
| Description | Generates a data-driven report that provides a rationale for their squad choices |

Table 2.5: UC5

| | |
|-------------|---|
| Use Case ID | UC6 |
| Use Case | Get Recommendations on Input |
| Actors | Coaching Staff, Team Selector, Franchise Manager |
| Description | Any privileged user receives contextual, AI-driven suggestions from the system to aid in decision-making. |

Table 2.6: UC6

2. Project Requirements

| | |
|-------------|---|
| Use Case ID | UC7 |
| Use Case | Match Player to Role |
| Actors | Coaching Staff, Team Selector |
| Description | The actor finds the best player for a specific role based on data/historical performance. |

Table 2.7: UC7

| | |
|-------------|--|
| Use Case ID | UC8 |
| Use Case | Simulate Auction |
| Actors | Franchise Manager |
| Description | The actor runs a mock player auction to test bidding strategies and practice building a balanced team. |

Table 2.8: UC8

| | |
|-------------|---|
| Use Case ID | UC9 |
| Use Case | Analyze Bowling Partnership |
| Actors | Coaching Staff |
| Description | The actor analyzes the combined performance data of two bowlers |

Table 2.9: UC9

| | |
|-------------|---|
| Use Case ID | UC10 |
| Use Case | Track Form and Fatigue |
| Actors | Coaching Staff, Player |
| Description | The actor monitors a players performance trends and physical workload to manage performance and prevent injury. |

Table 2.10: UC10

2.1.3 Extended Use Cases

| | |
|-----------------|--|
| Use Case ID | UC1 |
| Use Case | Log In/Register |
| Preconditions | The actor must have a device with access to the CrickVision web app. |
| Main Flow | <ul style="list-style-type: none"> • The actor navigates to the login page. • The actor will enter their credentials and system will validate it. • The system establishes a session and directs them to their personalized dashboard. • In case of register, the actor fills out the form with required details. • The system creates a new user account and sends a verification email and verifies it. |
| Postconditions | Successful, active session with the system. |
| Alternate Flows | <ol style="list-style-type: none"> 1. If credentials are incorrect, the system displays an 'Invalid username or password' error. 2. If the email is already registered then system displays an 'Email address is already in use' message. |

Table 2.11: Extended: UC1

| | |
|-----------------|--|
| Use Case ID | UC2 |
| Use Case | View Executive Dashboard |
| Preconditions | The actor must be logged into the system. |
| Main Flow | <ul style="list-style-type: none"> • The actor logs in and is directed to the Executive Dashboard. • The system fetches real-time and historical data and aggregates key metrics. • The system displays the information using interactive charts, graphs and summary cards. • The actor can apply basic filters. |
| Postconditions | The actor is informed of the current strategic and performance status. |
| Alternate Flows | <ol style="list-style-type: none"> 1. If a data source is lagging, the system shows a message that the data is not real time. |

Table 2.12: Extended: UC2

2. Project Requirements

| | |
|-----------------|---|
| Use Case ID | UC3 |
| Use Case | Generate Opponent Scouting Report |
| Preconditions | The coach is logged in and historical data for the opponent exists in the database.. |
| Main Flow | <ul style="list-style-type: none">• The coach selects the 'Scouting Report' and opponent team.• Then it applies optional filters.• The coach initiates the report generation and the system compiles a report detailing the opponent's strengths, weaknesses, key stats etc.• The report is displayed, which the coach can save or export. |
| Postconditions | A scouting report is successfully generated and saved. |
| Alternate Flows | <ol style="list-style-type: none">1. If there is not enough data, the system displays a notification of 'Insufficient data'. |

Table 2.13: Extended: UC3

| | |
|-----------------|---|
| Use Case ID | UC4 |
| Use Case | Identify High-Potential Players |
| Preconditions | the selector is logged in and historical data is present in the system |
| Main Flow | <ul style="list-style-type: none">• The selector opens the feature and defines search criteria.• The system processes the data using ML models to identify players with high potential.• The system presents a ranked list of players with a potential score and key stats.• The selector reviews the list and exports a shortlist to share with the cricket board |
| Postconditions | A data-backed list of high potential players. |
| Alternate Flows | <ol style="list-style-type: none">1. If filters are too restrictive then system will display that no matching players were found for this. |

Table 2.14: Extended: UC4

| | |
|-----------------|---|
| Use Case ID | UC5 |
| Use Case | Justify Player/Team Selection |
| Preconditions | A squad is already been created or selected within the system. |
| Main Flow | <ul style="list-style-type: none"> • The selector chooses 'Justify Selection' option for a specific squad. • The system automatically compiles relevant data for the selected players. • The system generates a report containing visualizations and text that highlights the reasoning behind each selection and may also included bias analysis. • The selector can add manual notes and export the justification report. |
| Postconditions | A justification report is created that can be shared with management. |
| Alternate Flows | <ol style="list-style-type: none"> 1. If a selected player has limited data available then insufficient data message will be displayed. |

Table 2.15: Extended: UC5

| | |
|-----------------|--|
| Use Case ID | UC6 |
| Use Case | Get Recommendations on Input |
| Preconditions | The actor is performing another task e.g. selecting a team. |
| Main Flow | <ul style="list-style-type: none"> • While using a feature, the actor provides input. • The actor clicks a 'get recommendation' button and system provides suggestions. • The system analyzes the input in the current context. |
| Postconditions | The actor receives a set of actionable recommendations to improve their decision. |
| Alternate Flows | <ol style="list-style-type: none"> 1. If the system cannot find a high-confidence recommendation then it will display a message. |

Table 2.16: Extended: UC6

2. Project Requirements

| | |
|-----------------|---|
| Use Case ID | UC7 |
| Use Case | Match Player to Role |
| Preconditions | The actor is logged in and system contains a comprehensive database of players and their stats. |
| Main Flow | <ul style="list-style-type: none">• The actor selects the feature and defines the desired role.• The actor specifies conditions.• The system analyzes its database, ranking players based on their suitability for the defined role and conditions• The system returns a ranked list of the most suitable players with a compatibility score |
| Postconditions | A data-driven list of players best matching the specified role is displayed. |
| Alternate Flows | <ol style="list-style-type: none">1. If no players are a strong match for the specified criteria, the system suggests broadening the filters. |

Table 2.17: Extended: UC7

| | |
|-----------------|--|
| Use Case ID | UC8 |
| Use Case | Simulate Auction |
| Preconditions | The manager is logged in and player auction pool and rules are defined. |
| Main Flow | <ul style="list-style-type: none">• The manager starts the auction simulator.• The manager confirms budget and squad rules.• The bidding starts, competing with other franchises.• When the manager wins a player, the budget and pool is updated accordingly.• The process is repeated until squad is full• The system displays final summary. |
| Postconditions | A simulated auction result and squad are generated for review. |
| Alternate Flows | <ol style="list-style-type: none">1. If a bid exceeds the available budget, the system displays error message. |

Table 2.18: Extended: UC8

| | |
|-----------------|---|
| Use Case ID | UC9 |
| Use Case | Analyzing Bowling Partnership |
| Preconditions | The coach is logged in and ball by ball data is available in the system/ |
| Main Flow | <ul style="list-style-type: none"> • The coach selects the feature. • The coach selects 2 bowlers from their team and applies filters. • The system processes all historical data where the two bowlers bowled in under the specified conditions. • The system displays a combined stats. |
| Postconditions | A detailed statistical analysis of the bowling partnership is displayed. |
| Alternate Flows | <ol style="list-style-type: none"> 1. If the selected bowlers have never bowled together then display that 'no partnership data is available'. |

Table 2.19: Extended: UC9

| | |
|-----------------|---|
| Use Case ID | UC10 |
| Use Case | Track Form and Fatigue |
| Preconditions | The actor is logged in and player workload and performance data is tracked. |
| Main Flow | <ul style="list-style-type: none"> • The coach selects the feature and chooses a player. • The system retrieves and processes the player's historical workload and performance data. • The system displays visualizations showing performance trends and workload metrics. |
| Postconditions | The actor has a clear, visual understanding of the player's current form and fatigue level. |
| Alternate Flows | <ol style="list-style-type: none"> 1. If workload data is missing for some matches, the analysis is displayed with a note indicating the data is incomplete. |

Table 2.20: Extended: UC10

2.2 Functional Requirements

This section describes the functional requirements for CrickVision. The requirements are grouped by module, which is divided into specific functional requirements that describe the features and functionalities of the system.

2.2.1 Module 1: Talent Identification and Scouting

- FR-1.1: The system shall allow a user to select an opposing team or an individual player to analyze.
- FR-1.2: The system shall generate a comprehensive report detailing the selected entity's statistical strengths, weaknesses and recent performance trends based on historical data.
- FR-1.3: The system shall generate a ranked list of high-potential 'undiscovered' players, justifying their ranking with key performance indicators and predictive models.
- FR-1.4: The system shall process and analyze performance data from specified cricket leagues.

2.2.2 Module 2: Strategic Planning and Team Selection

- FR-2.1: The system shall allow a user to input match conditions and select a squad of available players.
- FR-2.2: The system shall generate a data-backed, optimal Playing XI from the squad tailored to the specified conditions.
- FR-2.3: The system shall allow a user to define a specific tactical role.
- FR-2.4: The system shall recommend the most suitable players from a squad to fill that role.
- FR-2.5: For any player recommended or included in a team, the system shall provide a concise, data-driven summary explaining the reasoning.

2.2.3 Module 3: Performance and Welfare Managements

- FR-3.1: The system shall display a trend graph of a selected player's performance over a specified period.

- FR-3.2: The system shall display a corresponding visualization of the player's recent workload to help coaches and managers assess potential fatigue and injury risk.
- FR-3.3: The system shall allow a user to select two bowlers for comparison.
- FR-3.4: The system shall calculate and display a Synergy score and relevant statistics that quantify their effectiveness.

2.2.4 Module 4: Franchise and Auction Management

- FR-4.1: The system shall allow a user to set auction parameters.
- FR-4.2: The system shall provide an interactive interface to simulate bidding on players from a draft pool.

2.2.5 Module 5: Centralized Intelligence

- FR-5.1: The system shall present a single, consolidated view of the most critical, context-aware insights from all other modules.
- FR-5.2: The dashboard shall include alerts for key events.
- FR-5.3: All dashboard widgets and summaries shall be interactive, allowing users to navigate directly to the detailed feature with a single click.

2.3 Non-Functional Requirements

This section focuses on the non-functional requirements in terms of the quality attributes of CrickVision.

2.3.1 Reliability

- REL-1.1: The primary objective for our project is to achieve a Mean Time Between Failure of at least 120 hours of continuous process. This target ensures that the platform remains consistently available and dependable for its key stakeholders during critical periods like pre-match planning and strategizing.
- REL-1.2: A failure could lead to significant operational setbacks, and such events would undermine user trust and the strategic advantage the platform is designed to provide.

- REL-1.3: In the event of failure, detailed logs will facilitate the root cause analysis. This prioritizes swift recovery through automated process restarts for minor issues.

2.3.2 Usability

- USE-2.1: The system shall allow a new user to successfully generate a scouting report for an opposing team within 10 minutes of their first use without any external support.
- USE-2.2: The user shall be able to access the Executive Dashboard from any other module or view with a single click.
- USE-2.3: The system shall provide clear, descriptive error messages if a user enters invalid data into a field.
- USE-2.4: All data visualizations must use a color-blind accessible palette and include clear labels and legends, ensuring that insights are understandable to all users regardless of visual ability.
- USE 2.5: When a user generates a team, the system shall automatically save it so that even if it is accidentally closed, it can be restored with a single interaction upon returning.

2.3.3 Performance

- PER-3.1: The report generation for a single team or player must be completed and displayed to the user in under 15 seconds from the initial request.
- PER-3.2: The system must support up to 50 concurrent users, accessing and running queries on the platform simultaneously without a degradation in performance.
- PER-3.3: The role suitability predictor shall return player recommendation within 3 seconds after all the parameters have been defined.
- PER-3.4: All database queries retrieving player statistics or historical data for display in the UI must be executed in under 2 seconds to avoid noticeable lag.

2.3.4 Security

- SEC-4.1: The system shall be designed to resist unauthorized access attempts from an attacker with intermediate technical skills and common hacking tools.

- SEC-4.2: The system must ensure that users can only access data and functionality relevant to their own franchise or team.
- SEC-4.3: The system must be robust enough to prevent a malicious actor from altering critical data, such as player performance statistics or historical match results, without detection.
- SEC-4.4: All data must be protected from unauthorized viewing.

2.4 Domain Model

The domain model for CrickVision will represent the key entities, relationships, and data flows within the system. The domain model will serve as a blueprint for understanding how the various components of the system relate to each other and how data moves through the system during operations.

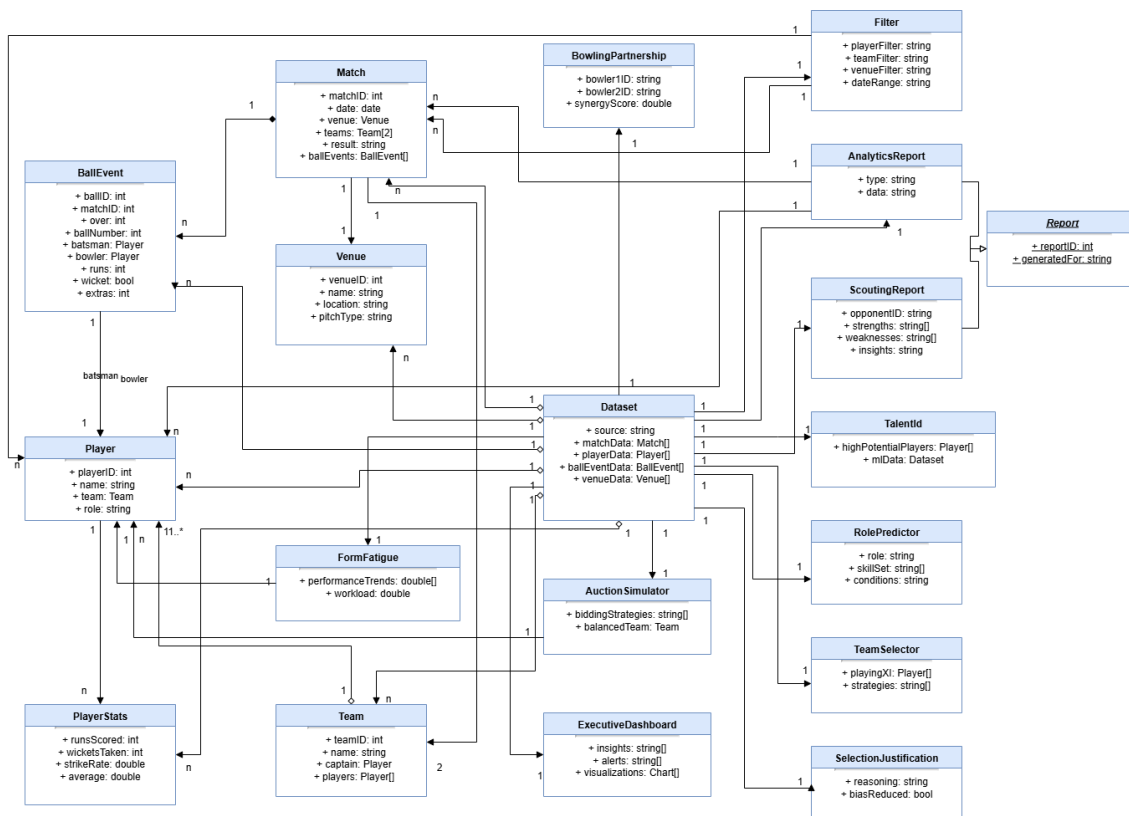


Figure 2.2: Domain Model

Chapter 3

System Overview

CrickVision is a comprehensive, web-based analytics platform designed to revolutionize cricket strategy by transforming raw data into actionable intelligence. Built using a Model-View-Controller architecture, it integrates modern technologies including machine learning and data visualization to support team selection, performance evaluation etc.

3.1 Architectural Design

3.1.1 Module 1: Finding and Evaluating Players

- This module transforms ball by ball massive data into meaningful insights using data analytics and machine learning model.
- It does not only generates team of high potential player but also generates reasoning behind selecting every player by generating detail scouting reports.
- Each player's individual performances using past matches data such as statistics of previous matches, performance across different formats is fed into this module to create scouting report of each player.

3.1.2 Module 2: Match Preparation and Team Selection

- This module's purpose is to create a well balanced team with appropriate roles and to ensure that each player's role is also backed up by solid proof.
- It adds contextual match setup including opponent team, venue to make the team selection more efficient.

- This module gives the team combination for playing XI which is backed up by each player's selection justification report to help coaches and selectors to validate their gut feeling and give any alternate options which might have been overlooked.

3.1.3 Module 3: Long-Term Team and Auction Management

- This module aims to keep check and balance on player's workload and form in matches.
- It uses past data to track fatigue among players through their performances.
- This module helps in long term planning in auctions. It helps management to plan ahead in teams auctions and select best players according to their current form and performance.
- The module uses performance data and aligns role appropriateness insights with Module 1 and Module 2. Financial and strategic conclusions are sent to Module 4 for the executive dashboard.

3.1.4 Module 4: Central Dashboard and Integration

- This module controls the entire CrickVision system. Its main function is to aggregate module outputs into a complete, easy-to-use decision-making platform.
- Modules 1, 2, and 3 results are combined into an executive dashboard that delivers coaches, selectors, and franchise managers integrated insights, real-time alerts, and customized suggestions.
- The module ensures the React front-end (responsive and interactive) and Python and machine learning backend function seamlessly together. A seamless and efficient user experience is ensured.
- This module's strongest feature is that it unites all available information, keeps things from getting messy, and empowers stakeholders to make clear and well-informed tactical and strategic decisions.

3.1.5 Module Connections

- Module 1 outputs performance-based assessments that improve role appropriateness predictions and team selection.

- Player performance data from Module 1 can be used for long-term planning, auction simulations, and wise investments in Module 3.
- Module 4 combines, synthesises, and creates a dashboard for viewing and study from Modules 1, 2, and 3.
- Finally, Module 4 provides coaches, selectors, and managers with an easy-to-use interface that presents recommendations and insights in a form they can comprehend and act on.

3.1.6 Modular Decomposition

- Four independent but connected modules make up CrickVision. Because each module handles a different functional area without overlap, it's easy to comprehend and manage. This simplifies software testing, debugging, and updating.
- Live ball-by-ball data streaming, biometric fatigue tracking, and video-based performance analysis can be added as independent modules without modifying the system architecture due to the modular design.
- The modular approach makes teamwork easier because developers can work on multiple components simultaneously.
- Module 4 works as integration layer and combines all results across all modules to make an easy and understandable dashboard to help make efficient decisions

Initial architecture diagram

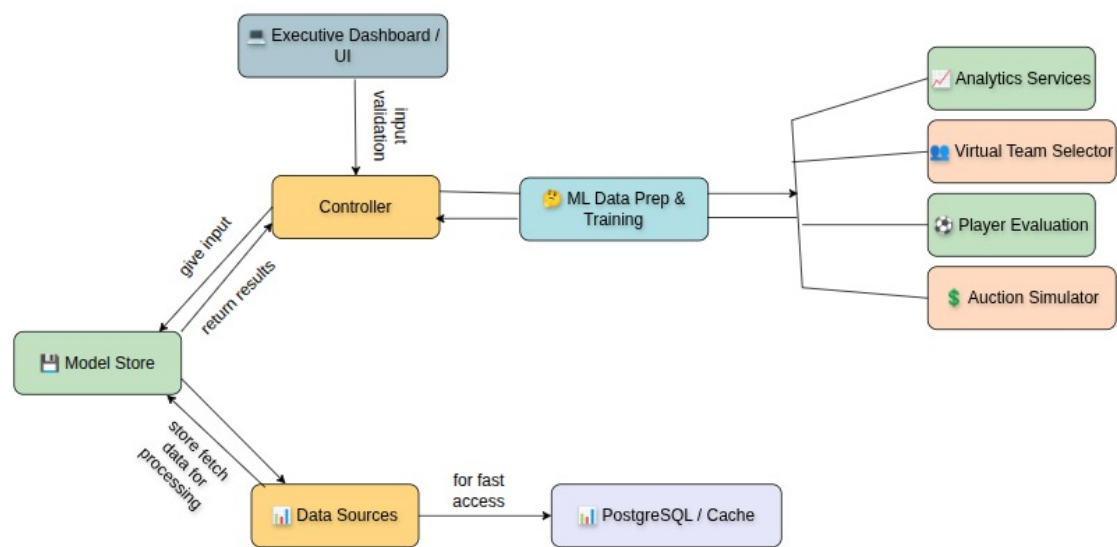


Figure 3.1: Initial Architecture

Hybrid architecture: MVC with multi tiered architecture

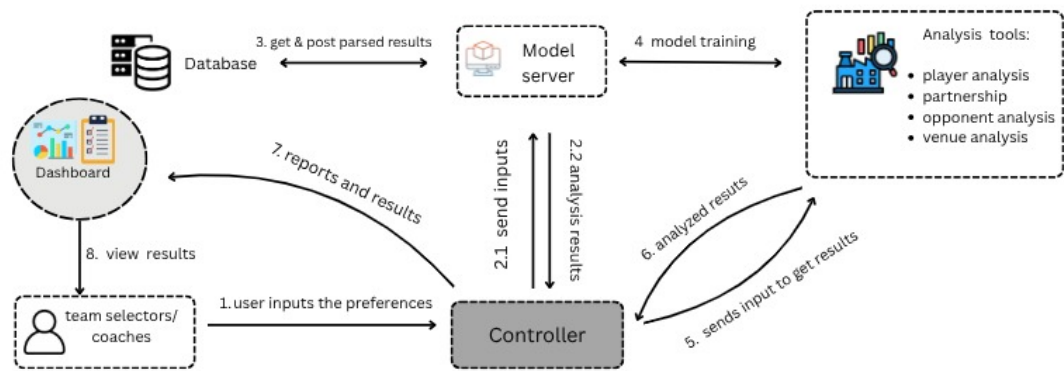


Figure 3.2: Final Architecture

3.2 Design Models

For this section, we created design models to provide a clear understanding of the system's structure and functionality. These models include the Activity Diagram, Class Diagram and Sequence Diagram. Each model serves a specific purpose and helps in visualizing different aspects of the system.

Design Models for Object Oriented Development Approach

3.2.1 Activity Diagram

This MVC architecture effectively separates the user interface, application logic, and data management into three distinct but interconnected components.

Model : This layer handles the preprocessing of data and operations related to machine learning. It begins with raw data from external source which is then cleaned and stored in a feature store.

View : This layer represents the frontend user interface. This final processed information after applying filters is presented through dashboards and visualizations which can be chosen to export or download.

Controller : It handles all user requests and manages the application's logic. It is responsible for checking user credentials and permissions. Upon receiving a valid request from View, it calls the necessary machine learning models in the Model Layer. It sends prepared data back to the View for display.

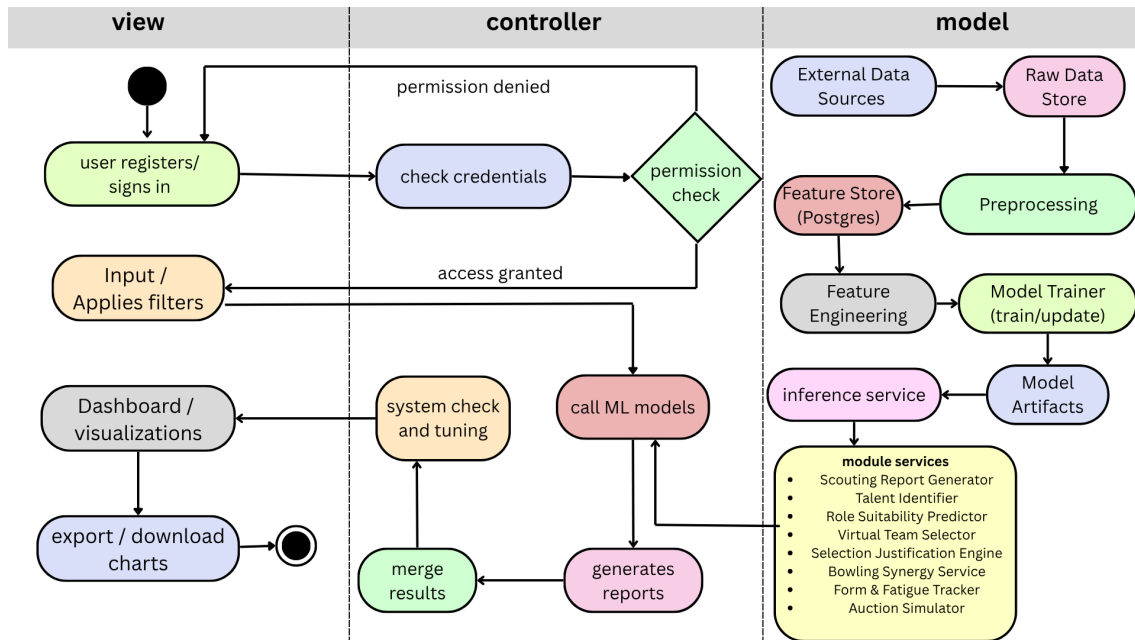


Figure 3.3: Activity Diagram

3.2.2 Class Diagram

Model : This layer contains the application's core logic and data. It includes data entities like Player, Team, and Match and services classes that perform all the main analyses.

View : This layer represents the user interface. Classes like Dashboard View and Scouting Report View are responsible for displaying data and capturing user input.

Controller : This is the middle layer that communicates with both, Model and View. It takes input from View and calls the appropriate function in the Model and then returns back the result to View to be displayed to the user.

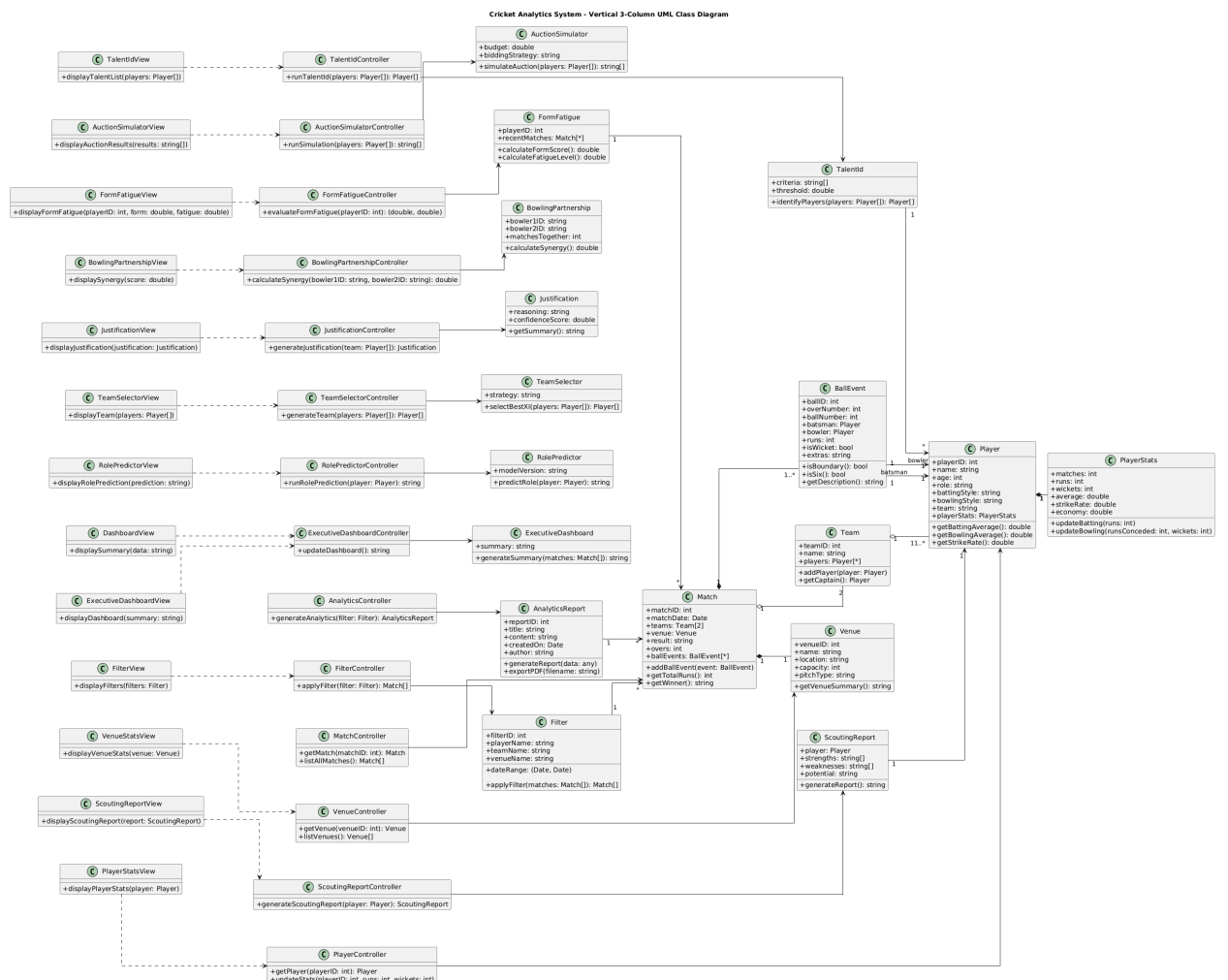


Figure 3.4: Class Diagram

3.2.3 Sequence Diagram

The sequence diagram illustrates the dynamic interactions between the user and the various microservices within the system. It details the step-by-step flow of information for key user actions, showcasing how different components collaborate to deliver functionalities. The diagram is divided into four main scenarios:

Login : The user is given access to the system once their credentials have been verified. This ensures secure access to the system.

Dashboard : Once logged in, the user requests to see the dashboard. Multiple services interact with each other to receive request to build dashboard widgets. It is then sent back to the user's screen.

Apply Filters : When a user applies filters to refine the data, the App Controller processes the query. A new report is generated through Module Services and the Inference Service then predicts the outcomes based on the specific filter criteria.

Export : If charts are to be exported, then the request is handled by the Export Service.

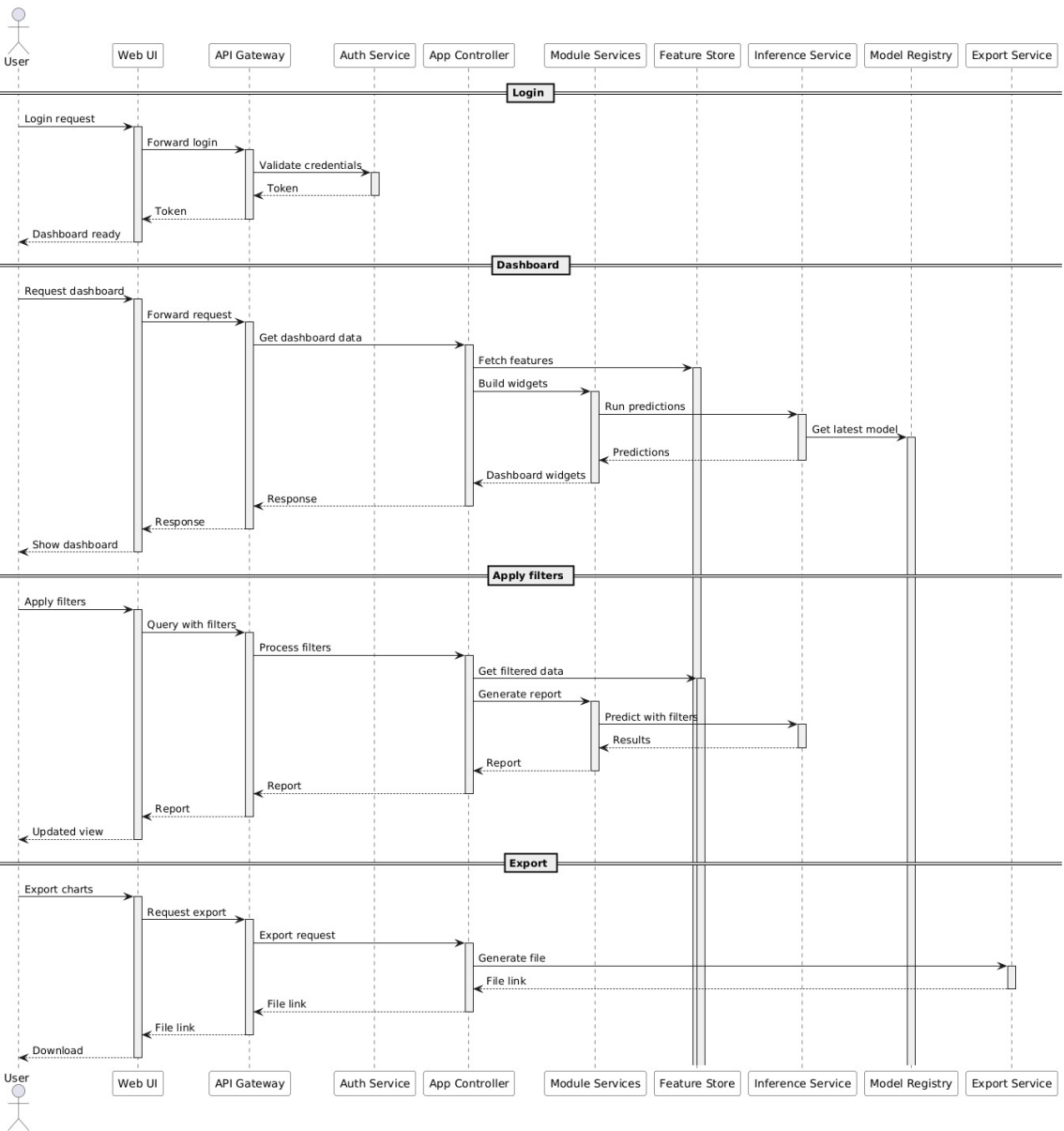


Figure 3.5: Sequence Diagram

3.2.3.1 Log In Sequence Diagram

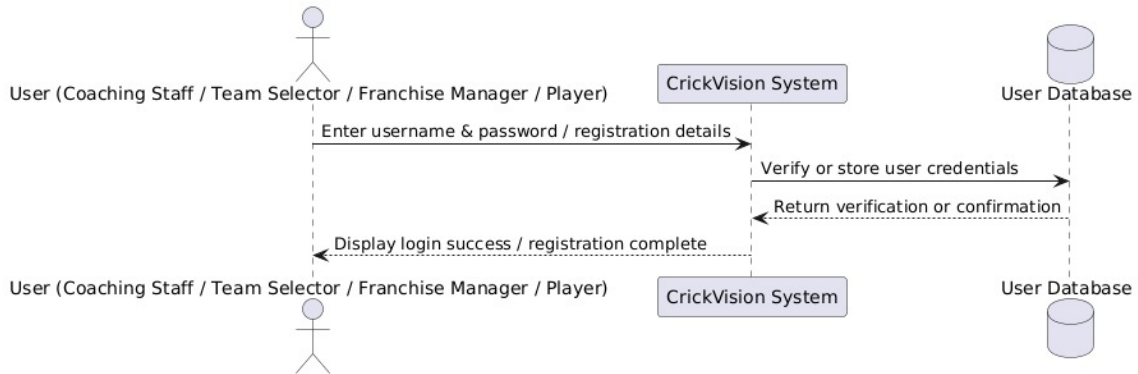


Figure 3.6: Use Case 1

3.2.3.2 Executive Dashboard Sequence Diagram

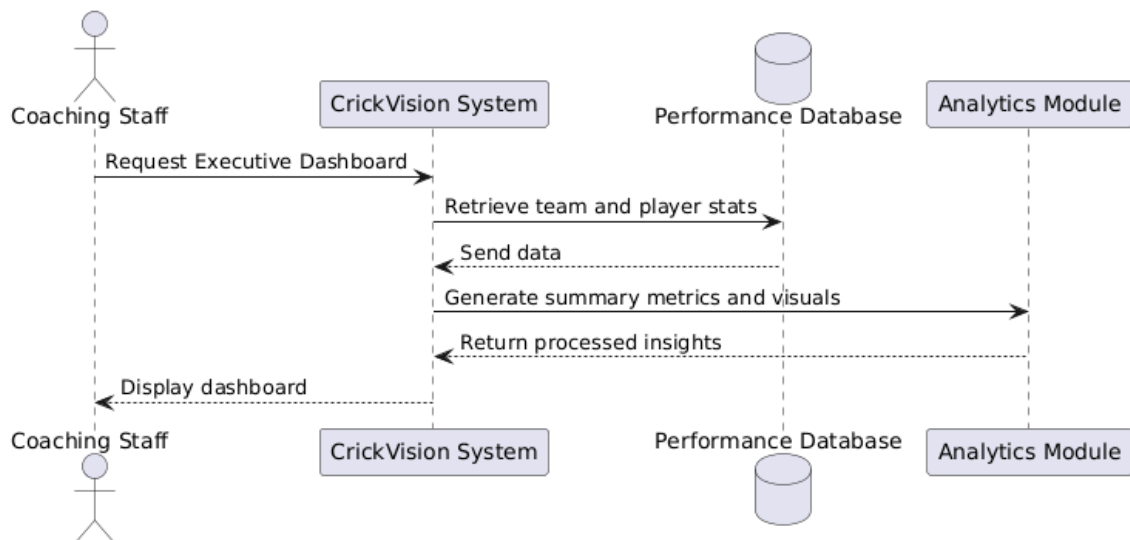


Figure 3.7: Use Case 2

3.2.3.3 Scouting Report Sequence Diagram

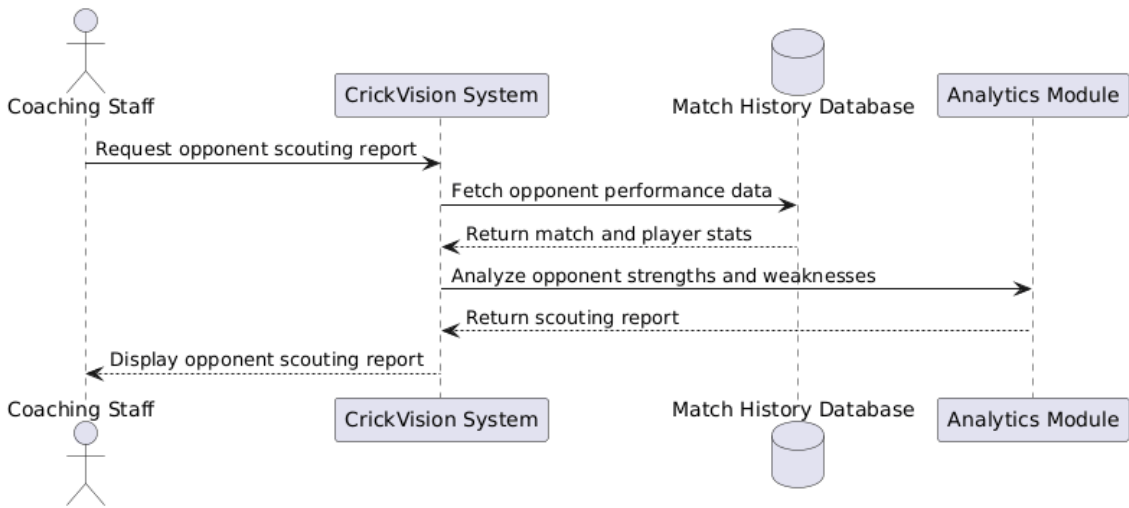


Figure 3.8: Use Case 3

3.2.3.4 High-Potential Players Sequence Diagram

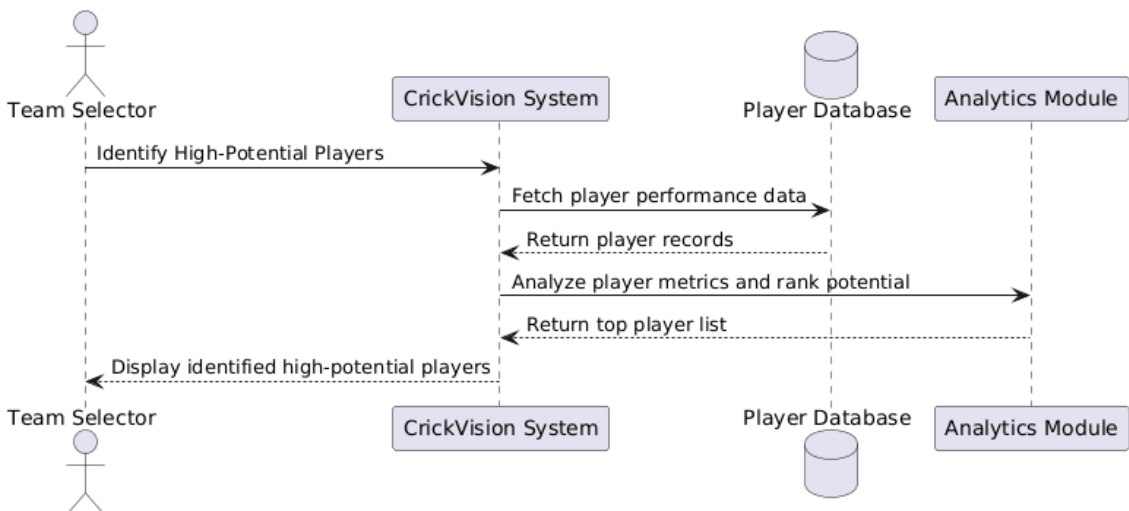


Figure 3.9: Use Case 4

3.2.3.5 Justify Player/Team Selection Sequence Diagram

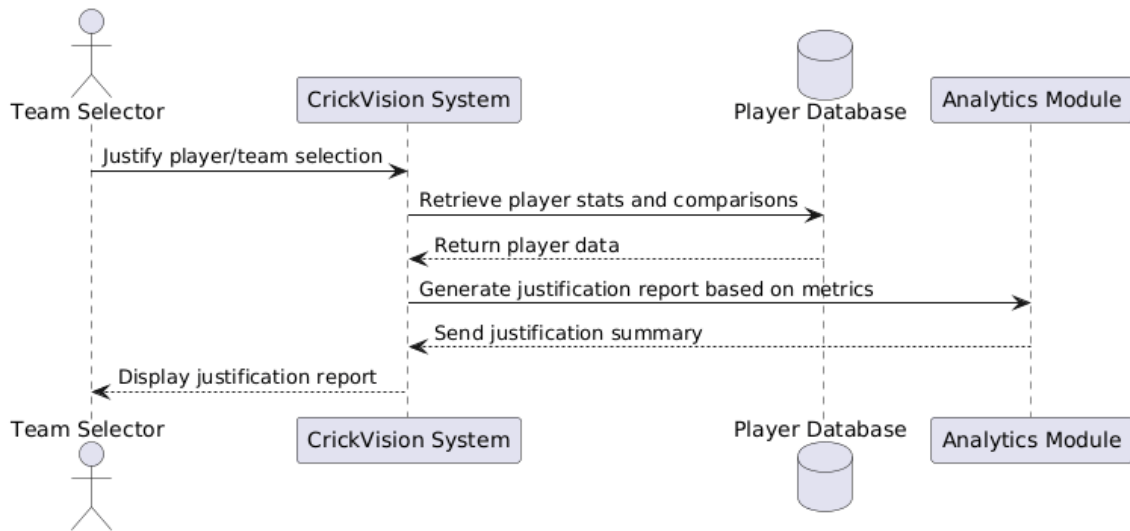


Figure 3.10: Use Case 5

3.2.3.6 Get Recommendations Sequence Diagram

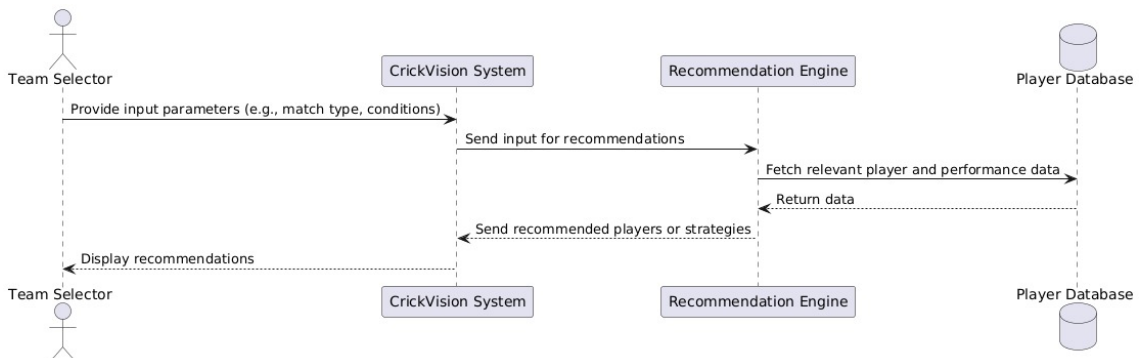


Figure 3.11: Use Case 6

3.2.3.7 Match Player to Role Sequence Diagram

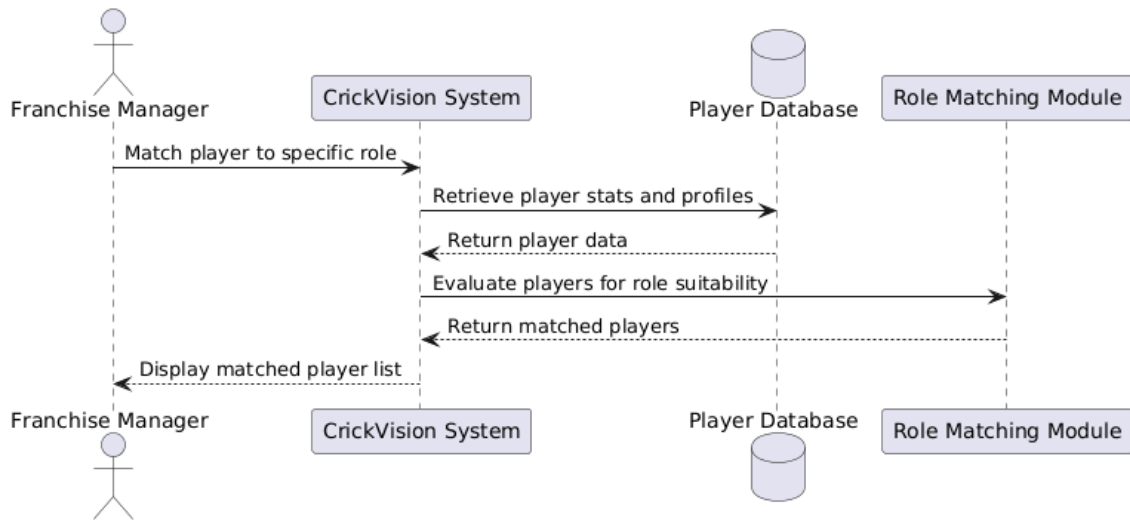


Figure 3.12: Use Case 7

3.2.3.8 Simulate Auction Sequence Diagram

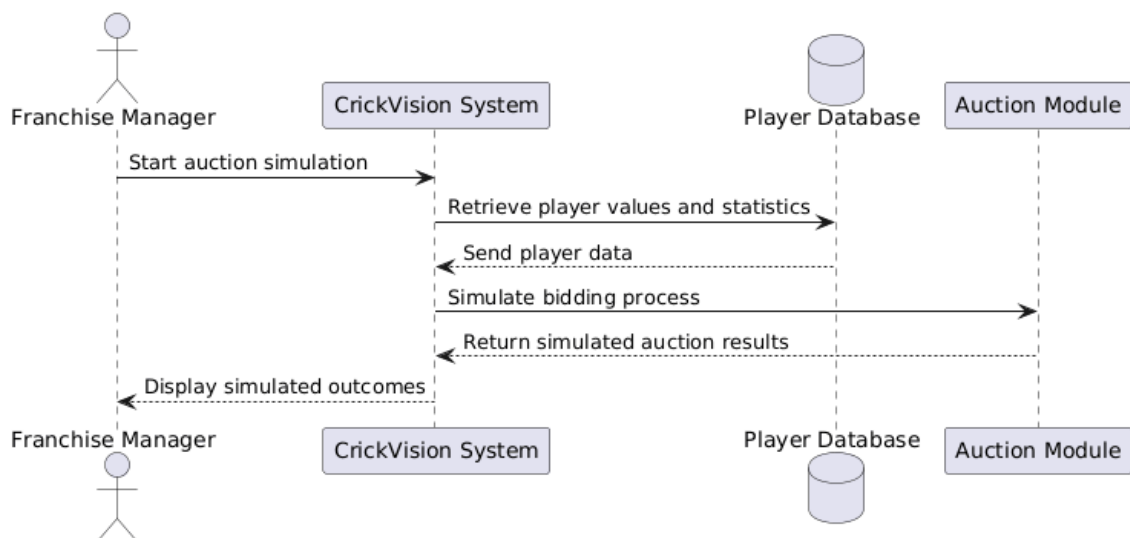


Figure 3.13: Use Case 8

3.2.3.9 Analyze Bowling Partnership Sequence Diagram

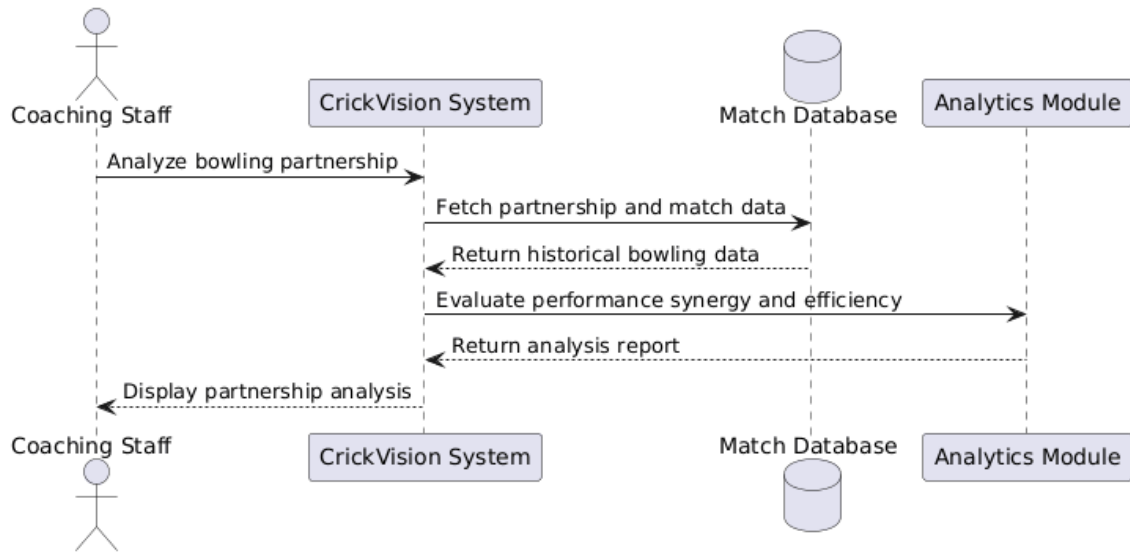


Figure 3.14: Use Case 9

3.2.3.10 Track Form and Fatigue Sequence Diagram

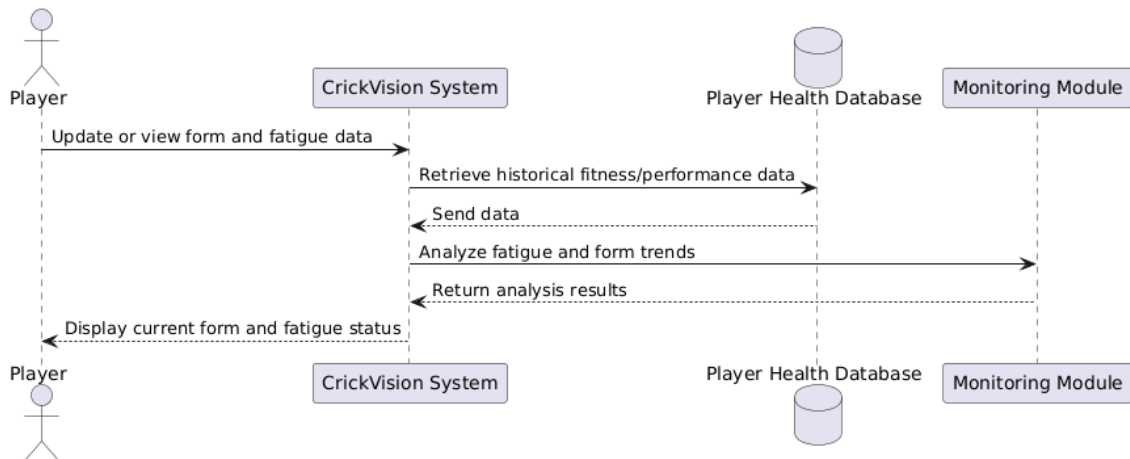


Figure 3.15: Use Case 10

3.3 Data Design

In CrickVision, data design is an essential aspect that ensures proper storage, organization, and retrieval of data. This section outlines how the information domain is transformed into data structures and how various system entities interact with databases and storage mechanisms.

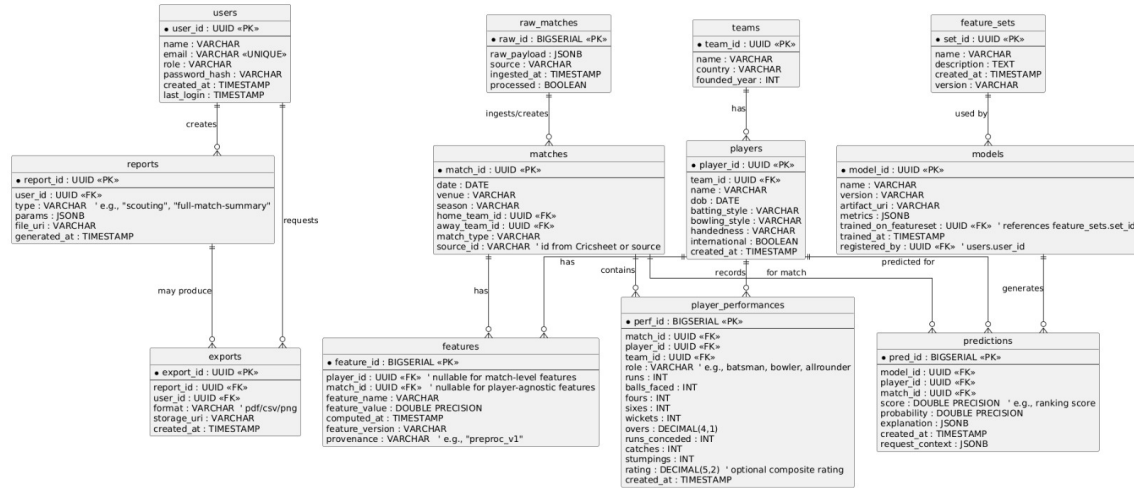


Figure 3.16: Data Design

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