

1. INTRODUCTION

1.1 Project Title

Cricbuzz – Live Cricket Score & Statistics Application

1.2 Project Description

The Cricbuzz Application is a mobile-based cricket information system developed using **Flutter** for the frontend and **RESTful backend services** for data management. The application provides **live scores, match details, team and player information, rankings, and match history** (ongoing, previous, and upcoming matches).

This system eliminates dependency on manual score tracking and provides **real-time cricket updates** to users.

2. OBJECTIVES

To develop a **cross-platform mobile application** using Flutter

To display **live cricket scores** in real time

To manage **players, teams, matches, and scorecards**

To show **ongoing, previous, and upcoming matches**

To generate **team and player rankings** based on performance

To provide a **user-friendly and responsive UI**

3. TECHNOLOGY STACK

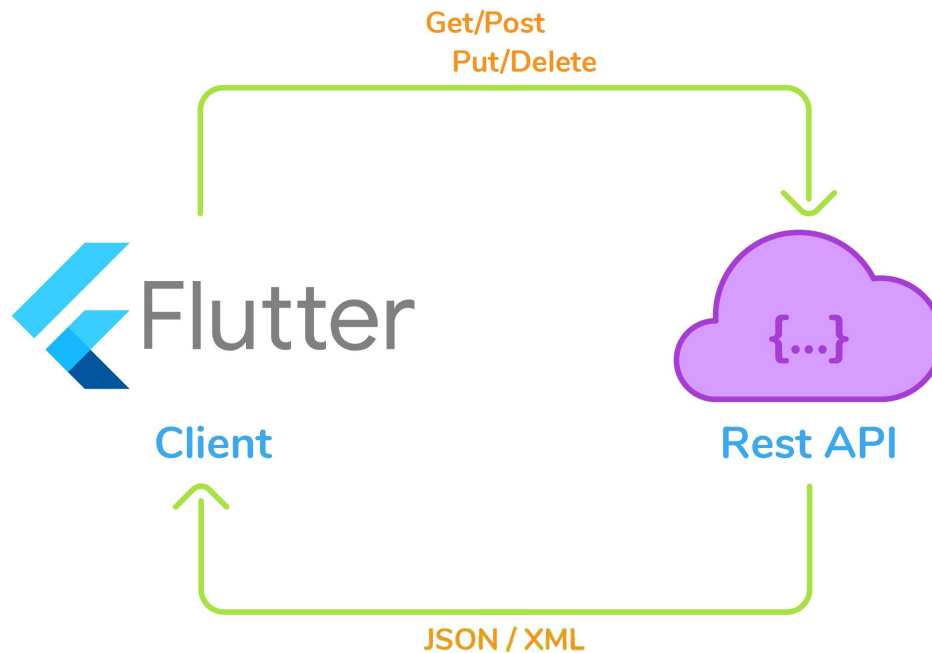
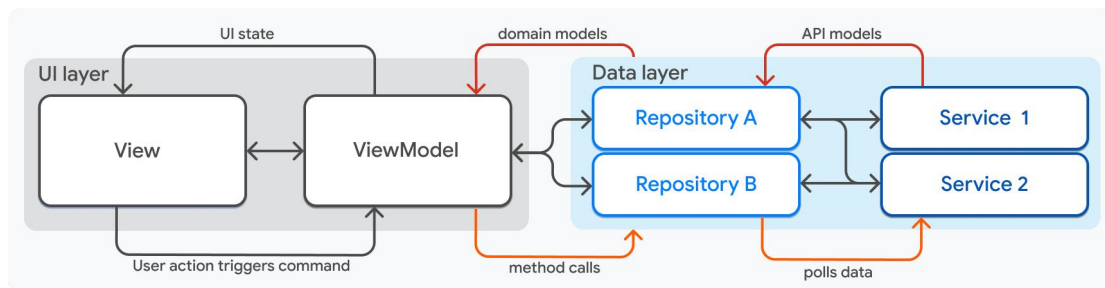
3.1 Frontend

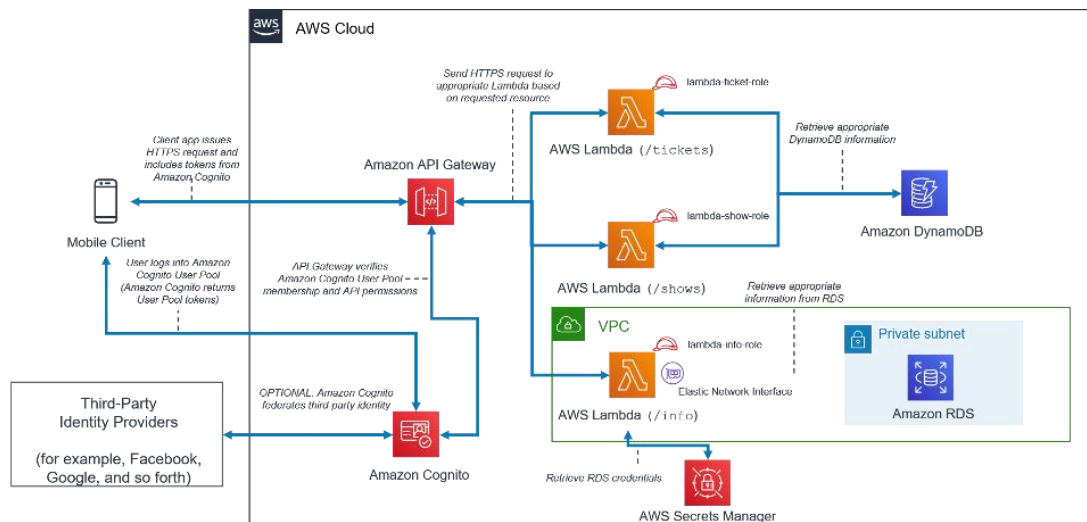
Technology	Description
Flutter	Cross-platform UI framework
Dart	Programming language
Material UI	UI components
Provider / Riverpod	State management
HTTP	API communication

3.2 Backend

Technology	Description
Node.js / Spring Boot (Java)	Backend services
REST API	Data communication
MySQL / MongoDB	Database
Firebase (optional)	Live score updates
JWT	Authentication

4. SYSTEM ARCHITECTURE





Architecture Flow

Flutter App → REST API → Backend Server → Database

Flutter handles UI & user interaction

Backend processes requests

Database stores cricket data

APIs deliver data to the app

5. FUNCTIONAL MODULES

5.1 USER MODULE

View live matches

Browse teams & players

View rankings

Check match history

5.2 TEAM MANAGEMENT MODULE

Features:

Add new teams

View team details

Team squad list

Team rankings

Team Data Fields:

Field	Description
Team ID	Unique ID
Team Name	Name of team
Country	Country name
Coach	Coach name
Ranking	Current rank

5.3 PLAYER MANAGEMENT MODULE

Features:

Add player details

View player profile

Player statistics

Player ranking

Player Fields:

Field	Description
Player ID	Unique ID
Name	Player name
Team	Team name
Role	Batsman / Bowler / All-rounder
Runs	Total runs
Wickets	Total wickets

5.4 MATCH MANAGEMENT MODULE

Match Types:

Ongoing Matches

Previous Matches

Upcoming Matches (Optional)

Match Fields:

Field	Description
Match ID	Unique match ID
Teams	Team A vs Team B
Date	Match date
Venue	Stadium
Status	Live / Completed / Upcoming

5.5 LIVE SCORE MODULE

Features:

Real-time score updates

Over-by-over display

Batting & bowling stats

Run rate & required rate

5.6 SCORECARD MODULE

Scorecard Details:

Team scores

Individual player scores

Bowling figures

Extras & fall of wickets

5.7 RANKINGS MODULE

Ranking Criteria:

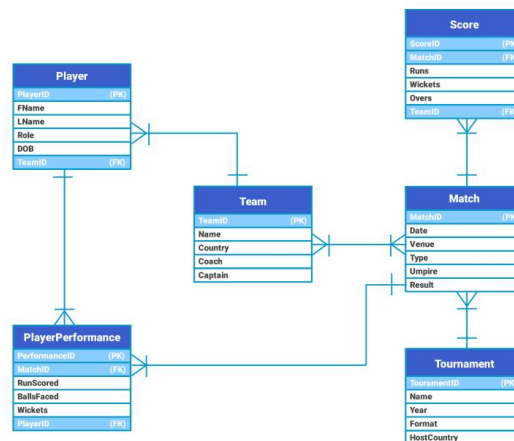
Match wins

Points table

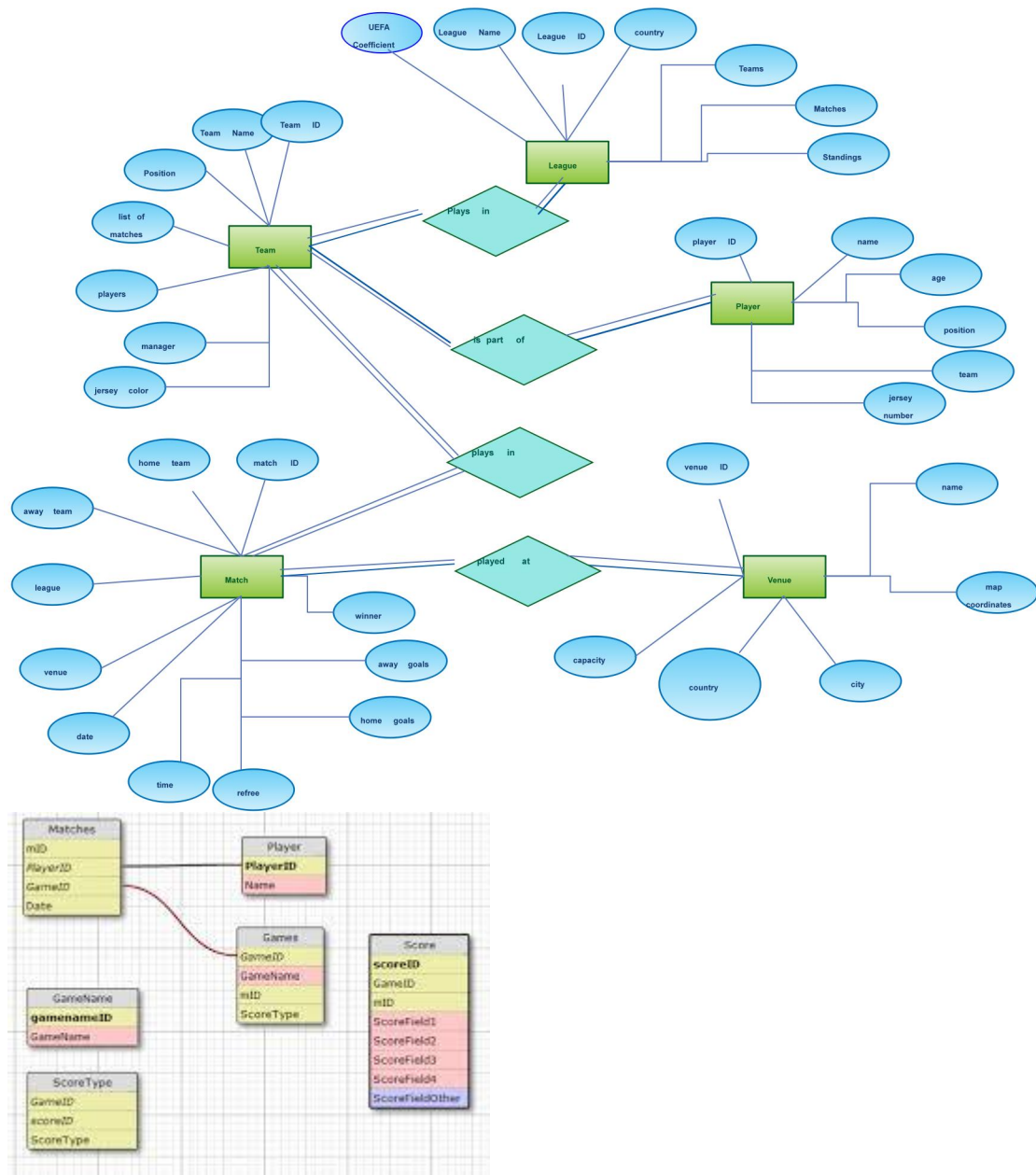
Player performance

Net run rate

6. DATABASE DESIGN



ER Diagram for European Football Leagues Database



Tables / Collections:

Teams

Players

Matches

Scorecards

Rankings

7. API DESIGN (BACKEND)

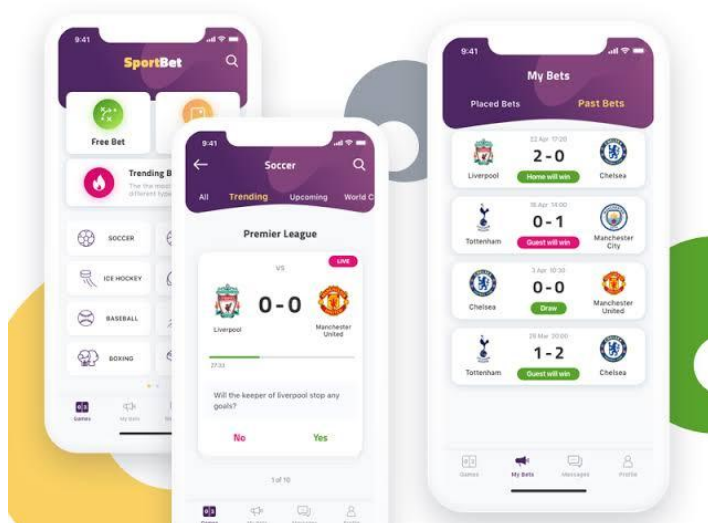
Sample Endpoints:

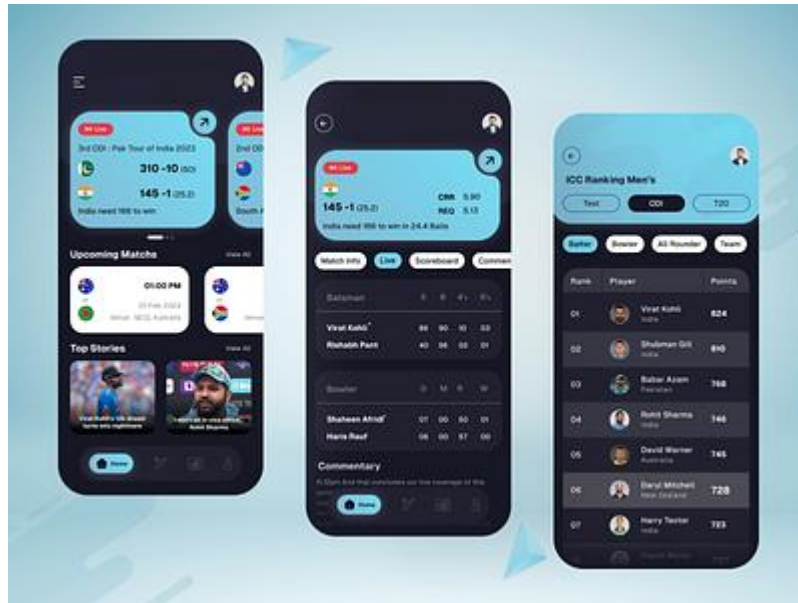
GET /teams
POST /teams
GET /players
POST /players
GET /matches/live
GET /matches/previous
GET /matches/upcoming
GET /scorecard/{matchId}
GET /rankings

8. FLUTTER FRONTEND STRUCTURE

```
lib/  
├── models/  
├── services/  
├── screens/  
│   ├── home_screen.dart  
│   ├── live_match_screen.dart  
│   ├── team_screen.dart  
│   ├── player_screen.dart  
│   └── ranking_screen.dart  
├── widgets/  
└── main.dart
```

9. UI SCREENS





Screens Included:

- Home Screen
- Live Match Screen
- Match Details
- Team List
- Player Profile
- Rankings Screen

10. SECURITY

- JWT-based authentication
 - Role-based access (Admin/User)
 - Secure API calls (HTTPS)
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11. TESTING

Types of Testing:

- Unit Testing

API Testing

UI Testing

Performance Testing

12. ADVANTAGES

Real-time cricket updates

User-friendly interface

Cross-platform support

Accurate statistics

Scalable architecture

13. LIMITATIONS

Internet dependency

Live data requires third-party APIs

Delay in real-time updates

14. FUTURE ENHANCEMENTS

Push notifications

Fantasy league integration

Match highlights

AI-based player prediction

Admin dashboard

15. CONCLUSION

The Cricbuzz Flutter Application successfully delivers a comprehensive cricket information platform with **live scores, team and player management, match statistics, and rankings**.

The use of Flutter ensures **high performance and cross-platform compatibility**, while the backend guarantees secure and scalable data management.