

# Soccer League Management

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## Table of Contents

- **Soccer League Management**
  - **Table of Contents**
  - **Project Description**
  - **Key Features**
  - **Technologies Used**
  - **Prerequisites**
  - **Installation Guide**
  - **Project Structure**
  - **Authentication and Roles**
    - **Available Roles**
    - **Security**
  - **Data Models**
    - **League**
    - **Team**
    - **Player**
    - **Match**
  - **Main Routes**
    - **General**
    - **Administrator**
    - **Captain**
    - **Referee**
  - **Detailed Features**
    - **Dynamic Home Page**
    - **Admin Panel**
    - **Captain Dashboard**
    - **Referee Tools**
  - **Screenshots**
    - **Login Page**
    - **Admin Dashboard**
    - **Team Management**
    - **Referee Management**
  - **Future Enhancements**
  - **Contributions**

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## Project Description

**Soccer League Management** is a comprehensive web application tailored for managing soccer leagues. It streamlines operations for administrators, team captains, and referees by providing tools to organize leagues, oversee teams, manage players, and schedule matches. Enhanced with role-based authentication, it ensures a secure and efficient user experience.

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## Key Features

- **League Management:** Create, edit, and delete leagues.
  - **Team Management:** Manage teams, assign captains, and maintain performance statistics.
  - **Player Management:** Add, edit, and remove players with team-based limits.
  - **Match Scheduling:** Organize, edit, and delete matches across different jornadas.
  - **Dynamic Statistics:**
    - Identify top scorers.
    - Highlight best defensive teams.
    - Calculate average goals per match.
  - **Role-Based Access:** Tailored functionalities for admins, captains, and referees.
- 

## Technologies Used

- **Backend:**
    - Node.js
    - Express.js
    - Sequelize (ORM for databases)
    - SQLite
  - **Frontend:**
    - Handlebars.js (templating engine)
    - Bootstrap (responsive design)
  - **Authentication and Security:**
    - Passport.js
    - express-session
    - connect-session-sequelize
  - **Additional Tools:**
    - Multer (file uploads)
    - Moment.js (date manipulation)
    - TypeScript
    - HTTPS with SSL certificates.
- 

## Prerequisites

1. Node.js (version 16 or higher).
  2. npm (included with Node.js).
  3. SQLite for database management.
  4. SSL Certificates ([key.pem](#), [cert.pem](#)).
- 

## Installation Guide

1. Clone the repository:

```
git clone <REPOSITORY_URL>
cd soccer-league-management/webapp
```

## 2. Install dependencies:

```
npm install
```

## 3. Compile TypeScript code:

```
npm run build
```

## 4. Start the server:

```
npm start
```

## 5. Access the application in your browser:

```
https://localhost:3000
```

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## Project Structure

```
soccer-league-management/  
├── webapp/  
│   ├── src/  
│   │   ├── routes/  
│   │   │   ├── adminRoutes.ts  
│   │   │   ├── captainRoutes.ts  
│   │   │   └── refereeRoutes.ts  
│   │   ├── model/  
│   │   ├── views/  
│   │   ├── config/  
│   │   ├── public/  
│   │   ├── middlewares/  
│   │   │   └── authMiddleware.ts  
│   │   └── server.ts  
│   ├── uploads/  
│   ├── package.json  
│   └── tsconfig.json
```

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## Authentication and Roles

### Available Roles

1. **Administrator (admin)**: Comprehensive control over leagues, teams, players, and matches.
2. **Captain (captain)**: Manages their team and assigned players.
3. **Referee (referee)**: Oversees match management and records performance statistics.

## Security

- Implements `passport.js` for local authentication.
  - Utilizes middleware (`isAuthenticated`, `hasRole`) to secure routes.
  - Manages sessions with `express-session` and SQLite storage.
- 

## Data Models

### League

- **Fields**: `id`, `name`, `totalGoalsFor`, `matchesPlayed`.
- **Relationships**: Associated with teams, players, jornadas, and matches.

### Team

- **Fields**: `id`, `name`, `leagueId`, `captainId`, `logo`, `balance`, `goalsFor`, `goalsAgainst`, `points`.
- **Relationships**: Belongs to a league, includes players, and participates in matches.

### Player

- **Fields**: `id`, `name`, `position`, `teamId`, `leagueId`, `goals`, `yellowCards`, `redCards`.
- **Relationships**: Member of a team and a league.

### Match

- **Fields**: `id`, `jornadaId`, `homeTeamId`, `awayTeamId`, `date`, `scoreHome`, `scoreAway`.
  - **Relationships**: Linked to a jornada, involves home and away teams.
- 

## Main Routes

### General

- `/`: Main page displaying league-wide statistics.
- `/login`: User login.
- `/logout`: User logout.

### Administrator

- `/dashboard/admin/ligas`: League management.
- `/dashboard/admin/equipos`: Team management.
- `/dashboard/admin/jugadores`: Player management.
- `/dashboard/admin/partidos`: Match management.

### Captain

- `/dashboard/captain/jugadores`: Manage team players.

**Referee**

- `/dashboard/referee/partidos`: View and manage matches.
- 

**Detailed Features**

**Dynamic Home Page**

- Displays aggregated league statistics.
- Highlights top scorers and best defensive teams.
- Lists upcoming matches by jornada.

**Admin Panel**

- **League Overview**: Create, edit, and archive leagues.
- **Team Insights**: Assign captains, view performance data, and handle team transfers.
- **Player Roster**: Manage player statistics and ensure fair play compliance.

**Captain Dashboard**

- View and manage the team roster.
- Upload player images and maintain uniform branding.
- Monitor team performance metrics.

**Referee Tools**

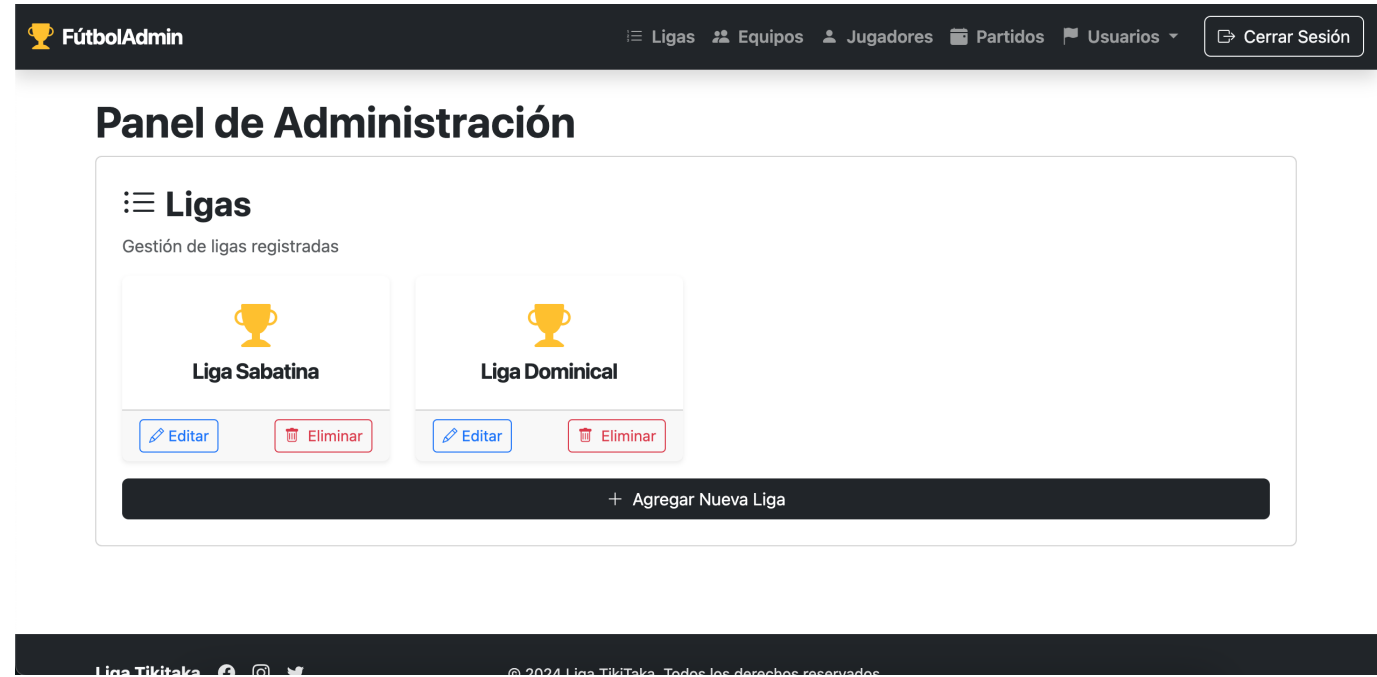
- Oversee match scheduling.
  - Record match outcomes, player statistics, and disciplinary actions.
- 

**Screenshots**

**Login Page**



Admin Dashboard



# Panel de Administración

🏆 Seleccionar Liga: Liga Sabatina


## Equipos


Gestión de equipos de la liga


Buscar equipo...


+ Añadir Equipo

### Club America



Puntos

Partidos

Balance

34

13


\$500


Capitán: capitan\_america\_1


GF / GC: 24 / 1


G: 11E: 1P: 1

### Chivas



Puntos

Partidos

Balance

15

9


\$500


Capitán: capitan\_chivas\_1


GF / GC: 9 / 9


G: 5E: 0P: 4

### Cruz Azul



Puntos

Partidos

Balance

10


9

\$500

Capitán: capitan\_azul\_1

GF / GC: 7 / 9

G: 3E: 1P: 5

 FútbolAdmin

LigasEquiposJugadoresPartidosUsuarios

Cerrar Sesión

# Panel de Administración

🏆 Seleccionar Liga: Liga Sabatina










## Jugadores

Gestión de jugadores de la liga

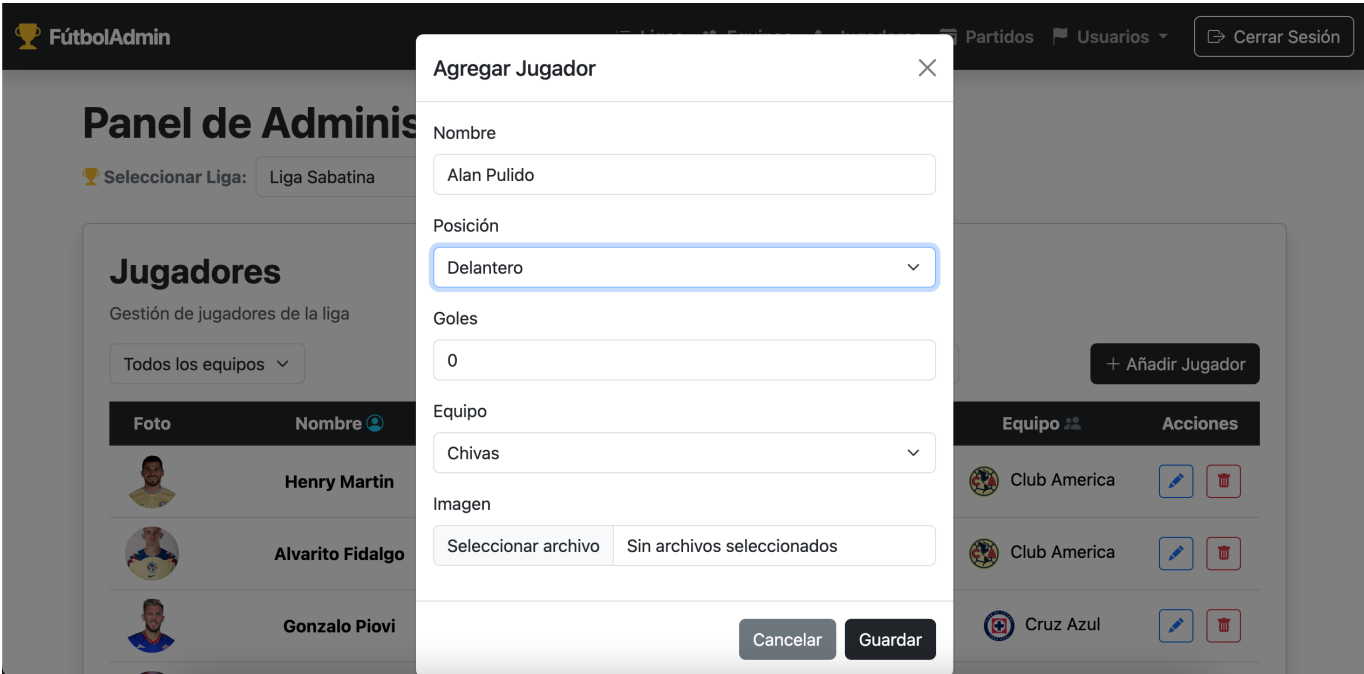
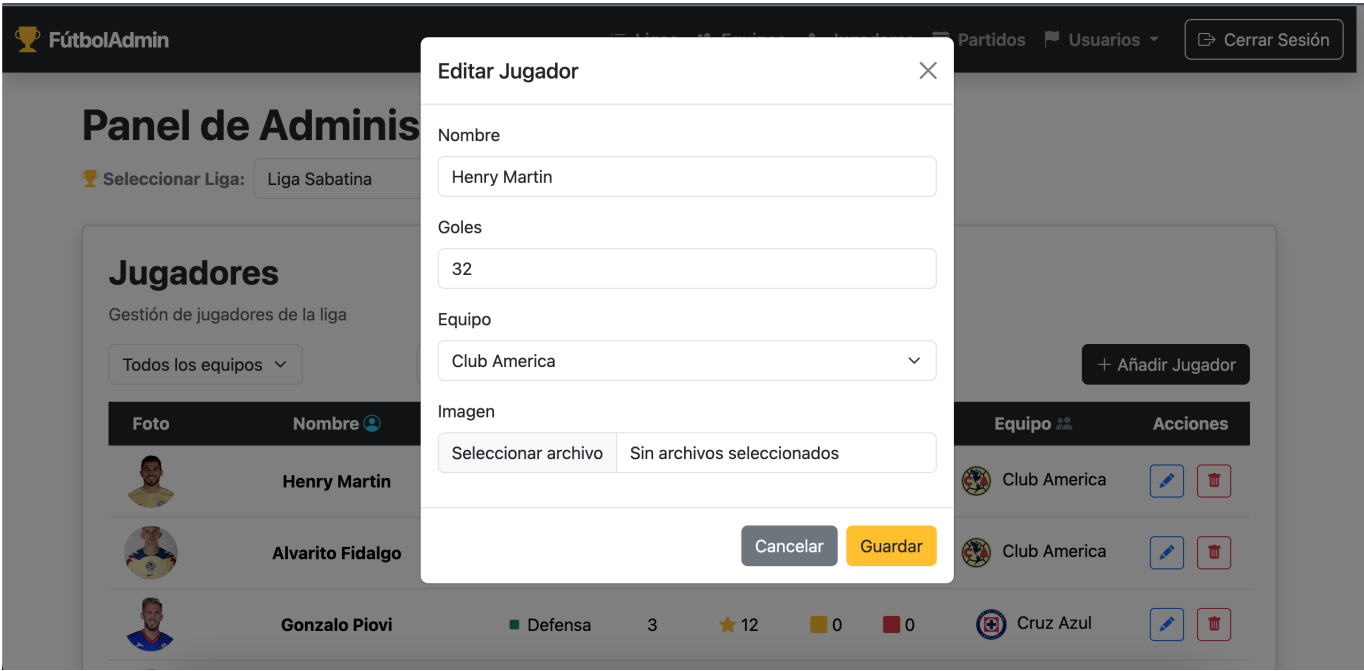
Todos los equipos

Buscar jugador...

+ Añadir Jugador

Foto	Nombre	Posición	PJ	Goles	TA	TR	Equipo	Acciones
	Henry Martin	Delantero	2	32	0	0	Club America	<div></div>
	Alvarito Fidalgo	Medio	2	15	0	0	Club America	<div></div>
	Gonzalo Piovi	Defensa	3	12	0	0	Cruz Azul	<div></div>

7 / 12







Ligas

Equipos

Jugadores

Partidos

Usuarios

Cerrar Sesión

# Panel de Administración

Seleccionar Liga: Liga Sabatina

## Gestión de Partidos por Jornadas

Agregar Jornada

Jornada: Jornada 1 - Fecha: Nov 23, 2024


Jornada: Jornada 2 - Fecha: Nov 30, 2024

Editar Jornada

Eliminar Jornada

Agregar Partido

Equipo Local	Equipo Visitante	Hora	Resultado	Acciones
Club America	Puebla	12:06	5 - 0	<div>Editar</div> <div>Eliminar</div>
Chivas	Cruz Azul	13:00	2 - 1	<div>Editar</div> <div>Eliminar</div>



Ligas

Equipos

Jugadores

Partidos

Usuarios

Cerrar Sesión

# Panel de Administración

Administradores



Árbitros

Capitanes

## Árbitros Registrados

Gestión de árbitros del sistema

Agregar Árbitro

Usuario	Rol	Acciones
 arbitro1	 Árbitro	<div>Editar</div> <div>Eliminar</div>

https://localhost:3000/dashboard/admin/usuarios/arbitros#

FútbolAdmin

Ligas

Equipos

Jugadores

Partidos

Usuarios

Cerrar Sesión

Administradores

Árbitros

Capitanes

Panel de Administración

Capitanes Registrados

Gestión de los capitanes del sistema

Buscar capitán por nombre de usuario...

Usuario	Equipo	Liga	Acciones
capitan_america_1	Club America	Liga Sabatina	<div>Editar</div> <div>Eliminar</div>
capitan_chivas_1	Chivas	Liga Sabatina	<div>Editar</div> <div>Eliminar</div>
capitan_azul_1	Cruz Azul	Liga Sabatina	<div>Editar</div> <div>Eliminar</div>
capitan_barcelona_2	FC Barcelona	Liga Dominical	<div>Editar</div> <div>Eliminar</div>
capitan_puebla_1	Puebla	Liga Sabatina	<div>Editar</div> <div>Eliminar</div>

Team Management

Fútbol Capitan

Cerrar Sesión

Mi Equipo

Gestión de jugadores del equipo Club America

Club America

Efectividad del Equipo

Partidos

0

2

4

6

8

10

12

14

Victorias

Empates

Derrotas

Efectividad: 84.62%

Estadísticas Generales

Partidos Jugados: 13


Victorias: 11

Derrotas: 1

Empates: 1


10 / 12

Añadir Jugador




**Henry Martin**  
Delantero  
Partidos Jugados: 2  
Goles: 32  

EditarEliminar




**Alvarito Fidalgo**  
Medio  
Partidos Jugados: 2  
Goles: 15  

EditarEliminar




**Guillermo Ochoa**  
Portero  
Partidos Jugados: 2  
Goles: 0  

EditarEliminar



**Sebastian Caceres**  
Defensa  
Partidos Jugados: 0  
Goles: 0  

EditarEliminar



**Jonathan Dos Santos**  
Medio  
Partidos Jugados: 0  
Goles: 0  

EditarEliminar

Referee Management

Fútbol Referee

Cerrar Sesión

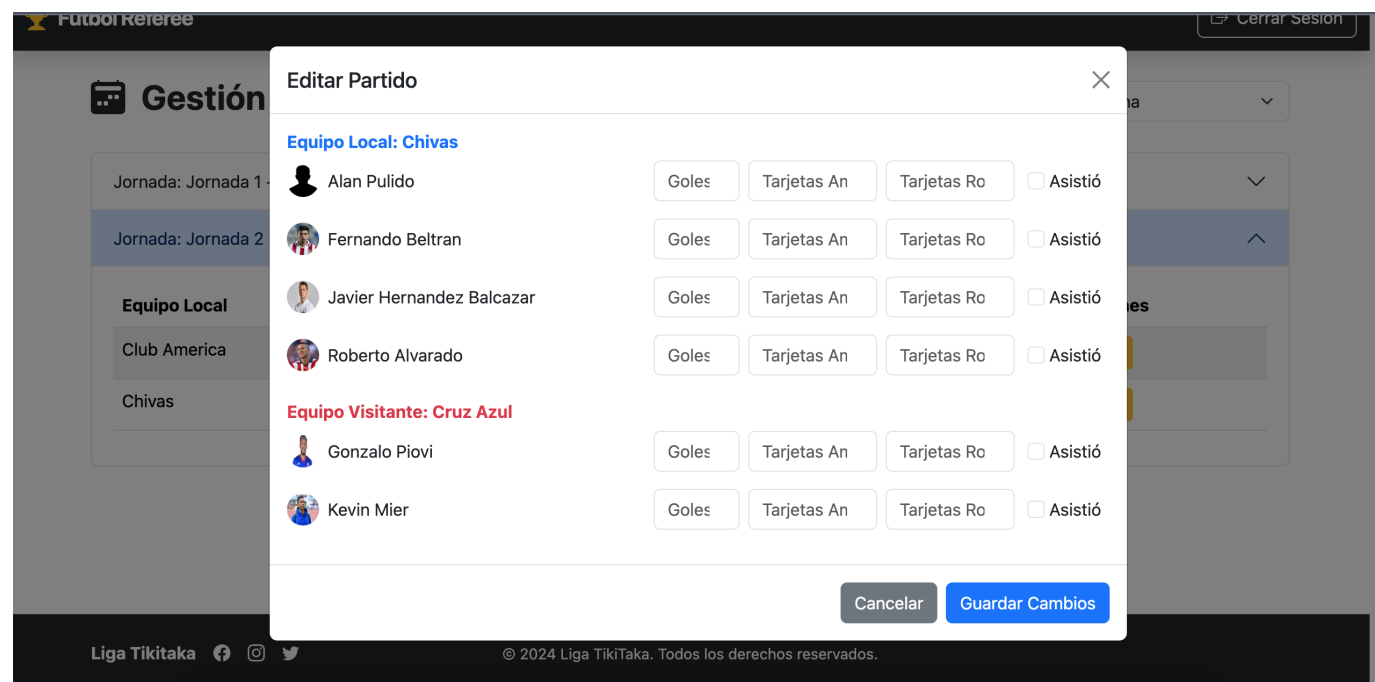
Gestión de Partidos por Jornadas

Seleccionar Liga: Liga Sabatina

Jornada: Jornada 1 - Fecha: Nov 23, 2024

Equipo Local	Equipo Visitante	Hora	Resultado	Acciones
Cruz Azul	Puebla	12:00	2 - 0	Editar
Club America	Chivas	12:00	5 - 0	Editar

Jornada: Jornada 2 - Fecha: Nov 30, 2024



## Future Enhancements

- 1. **User Notifications:** Email or in-app alerts for match updates and deadlines.
- 2. **Advanced Analytics:** Graphical insights on team and player performance.
- 3. **Integration with External APIs:** Fetch live soccer data for added realism.

## Contributions

Contributions are welcome! Please follow these steps:

- 1. Fork the repository.
- 2. Create a branch for your feature or fix: `git checkout -b feature/new-feature`.
- 3. Commit your changes: `git commit -m 'Add new feature'`.
- 4. Push your changes: `git push origin feature/new-feature`.
- 5. Open a Pull Request.