Fantasy Game Feature Development

Project Overview

Repository Link

GitHub Repository

Deployed Link

Deployed Application

Project Overview

This project involves developing a simple fantasy game feature where users can create and manage their fantasy teams, similar to Dream11. The application is built using the MERN stack (MongoDB, Express.js, React, and Node.js) and utilizes Tailwind CSS for styling.

Approach

Backend Development

1. **Setup:**
   - Used Node.js and Express.js to set up the server.
   - Connected to MongoDB using Mongoose to store player and team data.
2. **API Endpoints:**
   - Implemented RESTful API endpoints for:
     - `GET /players`: Retrieves all available players.
     - `POST /teams`: Creates a new team.
     - `GET /teams/:id`: Retrieves a specific team by ID.

Frontend Development

1. **UI Design:**
   - Built the user interface using React, focusing on user-friendliness and responsiveness.
   - Created separate components for player listing and team creation.
2. **Player Management:**
   - Implemented functionality to display available players with their attributes.
   - Allowed users to add players to their team while enforcing a maximum of 11 players and preventing duplicates.
3. **Team Management:**
   - Displayed the user's team with player details and total points.
   - Created a form for users to input their team name and submit their team to the backend.

Challenges Faced

1. **State Management:**
   - Managing the state of the selected players and ensuring that the same player couldn't be added multiple times required careful checks during player addition.
2. **API Integration:**
   - Ensuring that the frontend correctly interacted with the backend API endpoints and handled responses properly posed challenges. I had to implement error handling to manage failed requests effectively.
3. **Design and Responsiveness:**
   - Creating a responsive design that looked good on various screen sizes took additional time and adjustments.
4. **Data Validation:**
   - Implementing form validation to ensure that inputs were valid and handled edge cases was critical in maintaining the integrity of the application.

Conclusion

This project provided a valuable experience in full-stack development using the MERN stack. I gained a deeper understanding of building RESTful APIs, managing state in React, and ensuring a smooth user experience through design and validation. I hope to continue improving this project and exploring further features in the future.