

PocketSports: The Digital Coaching App

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Abstract:

Lots of apps only focus on one end of coaching. PocketSports aims to eliminate the need for multiple apps by delivering a cross-sport app with an increased app functionality

Coaches can...

1. Set and Track Goals
2. Design Practice Plans
3. Execute and Analyze Practice Plans

Players can...

1. Create Goals and Monitor Progress
2. View Practice Plans
3. Review Practice Results

System Architecture:

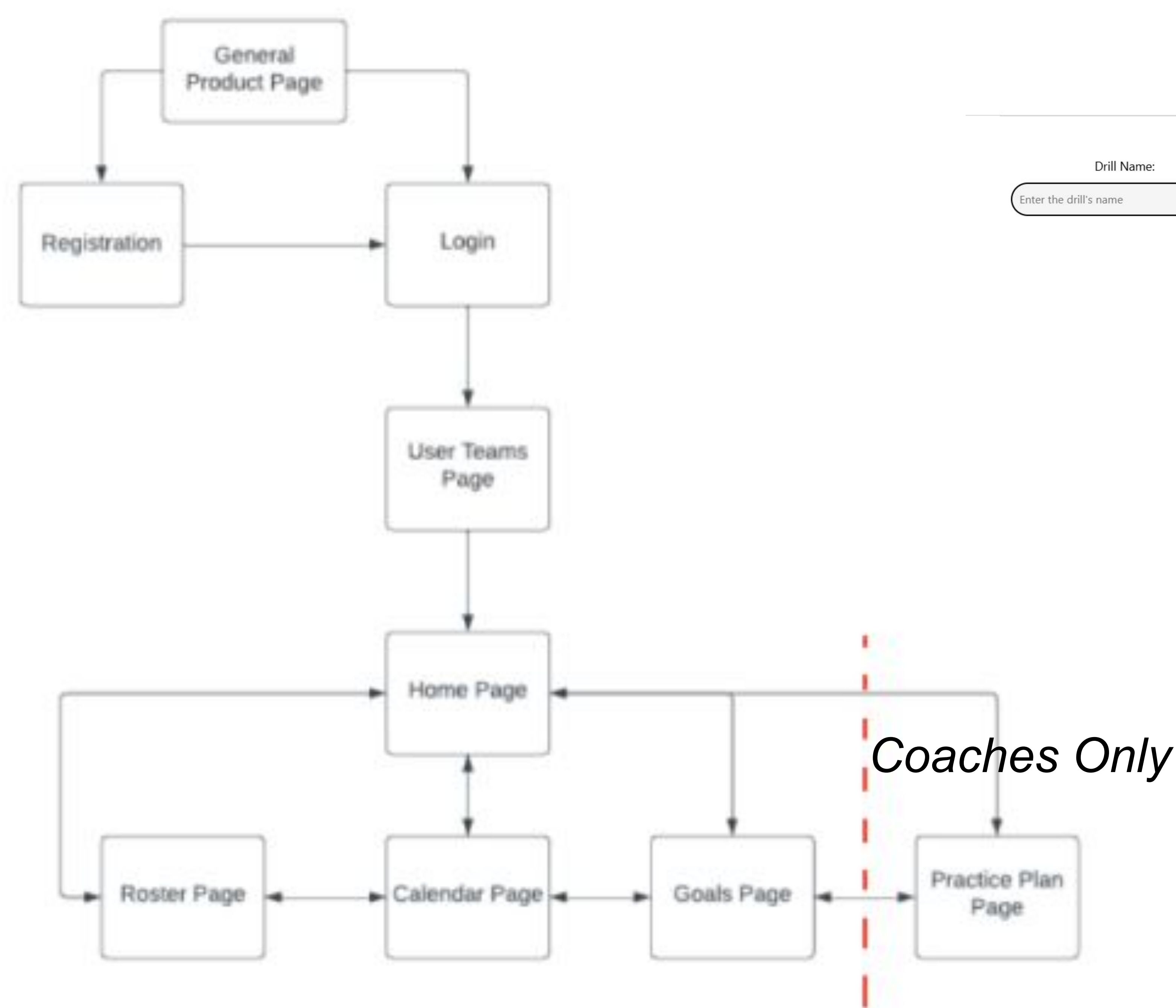


Figure 1: System Architecture

Methods:

- **MERN Stack:** Uses MongoDB, Express/Node.js, and React for a modular, scalable architecture.
- **Real-Time Features:** Utilizes websockets for collaborative practice design, live drill tracking, and real-time stat updates.
- **Data Visualization:** Integrates Chart.js to display progress and performance metrics visually.
- **Role-Based Access:** Implements secure logins and role-specific dashboards for owners, coaches, players, and parents.
- **Goal Setting & Practice Planning:** Offers interactive tools to design, store, and integrate drills into practice schedules.

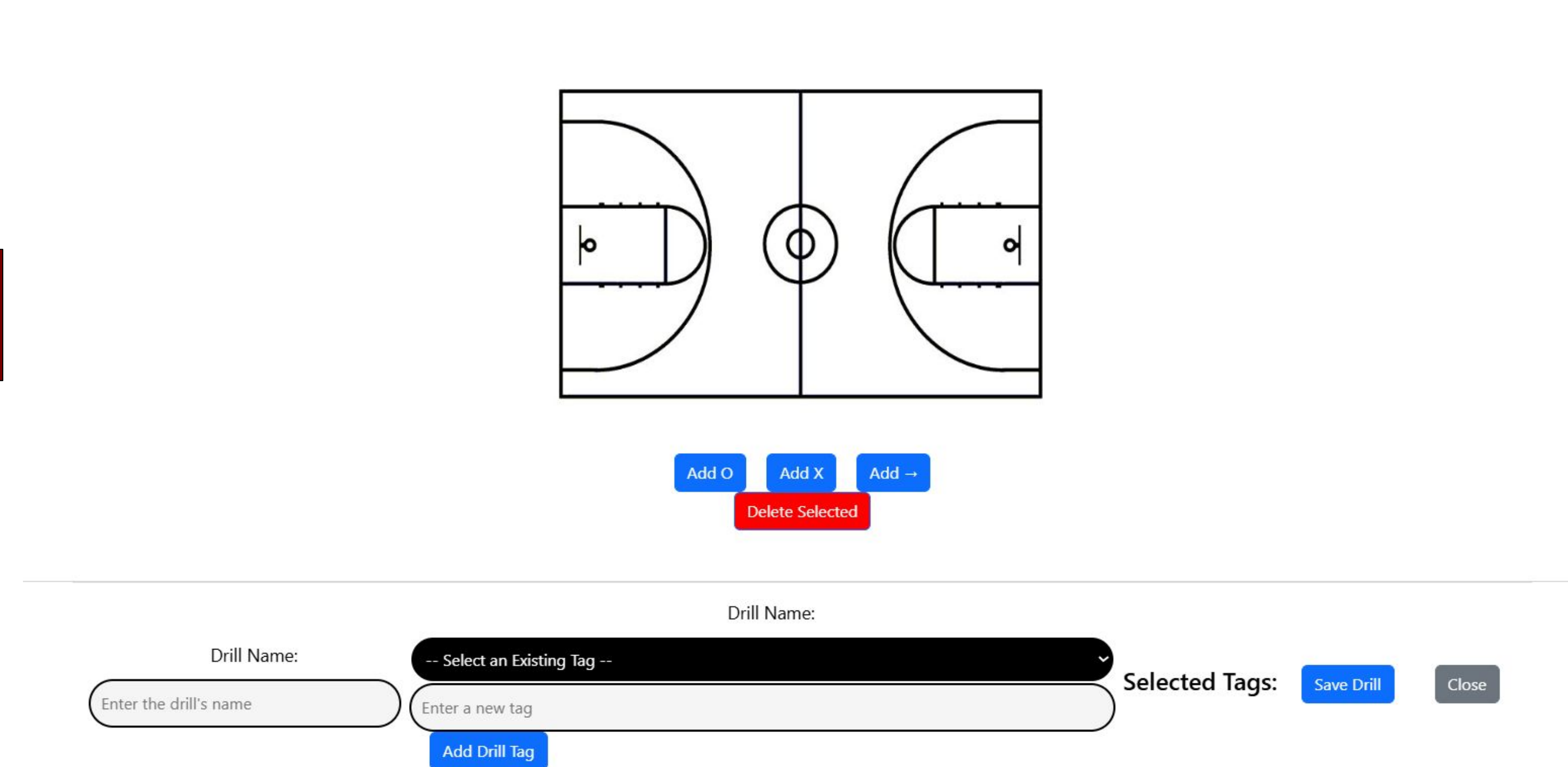


Figure 2: Drill Creation Template

Limitations and Improvements:

- Limitations
 - Drill libraries and performance metrics are currently basic
 - Partial offline functionality still relies on stable network access for optimal data sync
 - Lack of advanced AI-driven analytics for personalized training recommendations
- Improvements
 - Expand sports-specific drill libraries for broader coverage
 - Enhance offline modes with robust caching and synchronization
 - Integrate AI/ML capabilities to deliver more customized and data-driven coaching insights

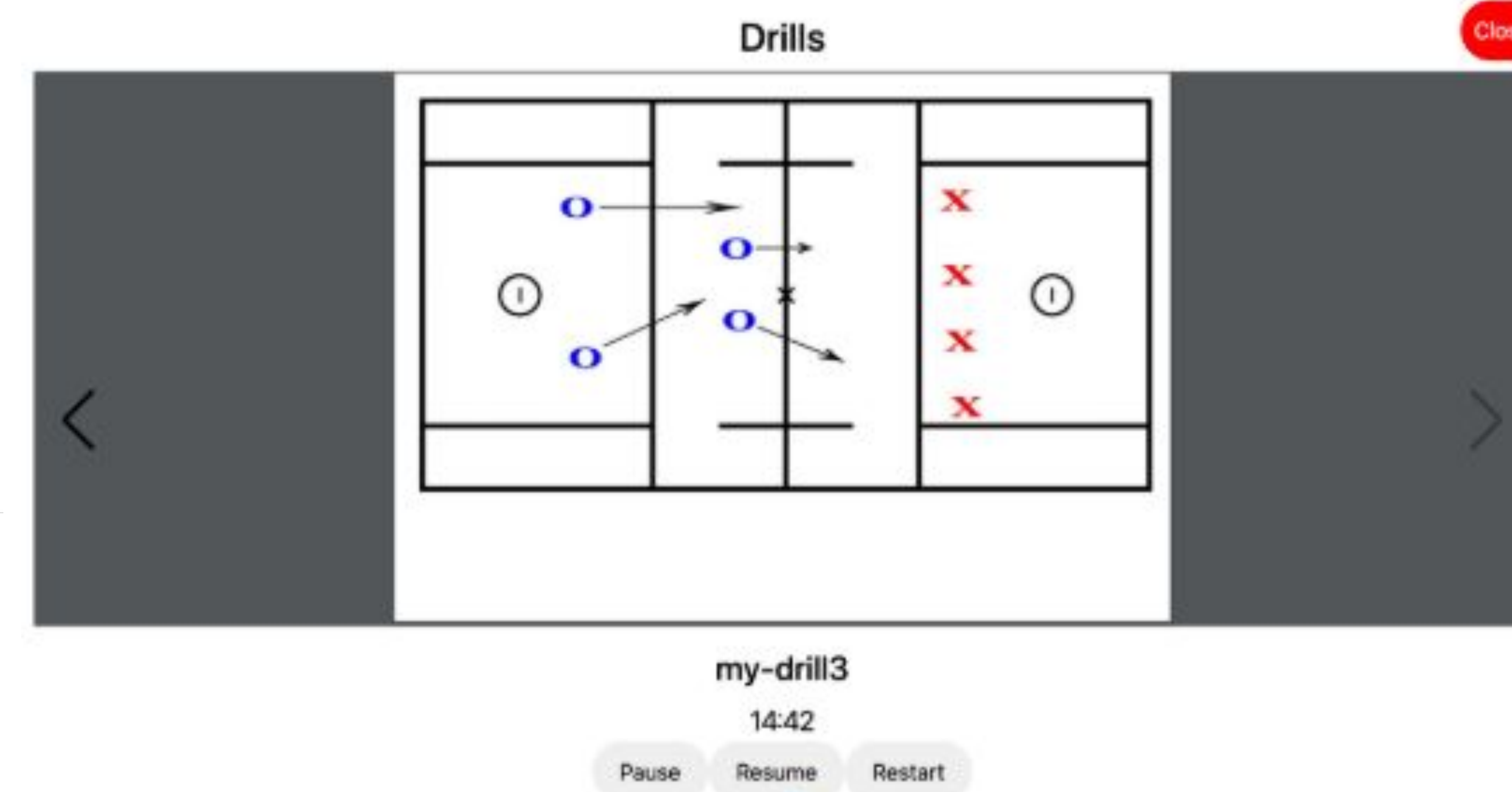


Figure 3: Execution of my-drill3

Tools Used:



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