

IT314 - Software Engineering

# Mid-Evaluation Report - G34

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# Introduction

Sports are essential for a healthy lifestyle, but many enthusiasts struggle to find venues, teammates, and qualified coaches. Venue owners often face challenges in managing bookings and filling empty slots, while coaches have limited ways to showcase their expertise and connect with players. These gaps lead to inefficiency and missed opportunities in the sports ecosystem.

**SportSphere** addresses these challenges by providing a **multi-sided platform** that connects **Players, Venue Owners, and Coaches** in one ecosystem. Unlike traditional booking apps, SportSphere goes beyond venue reservations by integrating **venue management, game hosting, and coach discovery** into a single solution.

- **Players** can book venues, host or join games, hire coaches, and receive personalized recommendations.
- **Venue Owners** can manage listings, update availability, set pricing, and track bookings.
- **Coaches** can showcase their expertise, set availability, accept bookings, and build credibility through ratings and reviews.

By uniting these stakeholders, SportSphere creates a **complete sports ecosystem** that simplifies booking, fosters community engagement, and makes sports more accessible.

## 1. Concept Poster and Chart Paper

### 1.1 [Chart Paper](#)

### 1.2 [Concept Poster](#)

## 2. Stakeholder and User Identification

### 2.1 Identification Process

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To identify stakeholders, we discussed with people who are directly or indirectly connected to the platform, as well as those who may be affected by its operations.

## 2.2 Elicitation Techniques Applied

We conducted brainstorming sessions among group members to identify potential stakeholders.

## 2.3 Identified Stakeholders and Users

stakeholders of SportSphere include:

### i) Primary Stakeholders (End Users):

- **Players** : Want to find teammates, book venues, and connect with coaches.
- **Venue Owners** : Need tools to list and manage their spaces, track bookings, and increase visibility.
- **Coaches** : Require a platform to showcase their skills, manage schedules, and attract new clients.

### ii) Secondary Stakeholders:

- **Payment Providers** : Facilitate secure transactions between players, venues, and coaches.
- **Sports Clubs/Organizations** : Potential partners for events, tournaments, and facilities.
- **Platform Admins** : Oversee system operations, verify listings, and handle disputes or issues

## 3. Functional and Non-Functional Requirements (FRs and NFRs)

### 3.1 Identification Process

The identification of Functional Requirements (FRs) and Non-Functional Requirements (NFRs) for the SportSphere platform was guided by the structured survey conducted with players and interviews with coaches and venue owners. The Google Form survey focused

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on five key areas: player demographics, current challenges, desired features, technology and accessibility, and final expectations.

From the survey responses, we mapped specific questions to concrete requirements. For example, questions about finding venues and booking frustrations highlighted the need for transparent venue search, real-time availability, and cancellation policies (FR 3.1, FR 3.5, FR 3.7). Similarly, questions on finding teammates and tournaments pointed toward community-building features such as hosting and joining games (FR 3.2, FR 3.4, FR 3.11). The section on desired features (venue booking, hiring coaches, payment options) was directly translated into core FRs (FR 5.1, FR 6.1–6.3) while the technology and accessibility section informed the NFRs, such as usability, fast booking, secure transactions, and data privacy.

Interviews with coaches revealed requirements for showcasing expertise, flexible pricing, and scheduling (FR 5.1, FR 5.2), while discussions with venue owners highlighted the need for real-time slot management, conflict detection, and revenue dashboards (FR 4.3, FR 4.5, FR 6.6). Finally, broader insights such as the importance of user-friendly design, system reliability, and trustworthiness were captured as Non-Functional Requirements.

## 3.2 Elicitation Techniques Applied

Two elicitation techniques were primarily applied in this project:

### 1. Surveys (Technique 1)

- The Google Form distributed among players provided structured, large-scale input.
- For example:
  - The question *“What frustrates you most when booking sports facilities?”* led to identifying FR 4.3 (real-time slot availability) and FR 6.5 (refunds for cancellations).
  - The section *“Which features would be most useful to you?”* directly shaped requirements like FR 3.1 (venue search), FR 3.8 (search for coaches), and FR 7.1 (rate and review).

Survey form of players - [Players Responses](#)

### 2. Interviews (Technique 2)

- Semi-structured(On Call) interviews with coaches helped identify their need for profile showcasing and flexible training packages (FR 5.1, FR 5.2).

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- Conversations with venue owners revealed challenges in managing availability and pricing, which shaped FR 4.2 (set slot prices, offers) and FR 4.5 (conflict warnings for booking clashes).

Interview of Venue Owners

- [AK Cricket Turf](#)
- [Pradip Football Club](#)

Interview of Coach -

- [Adarsh Sir Badminton](#)
- [Pradip Sir Volleyball](#)

By combining the breadth of surveys with the depth of interviews, we ensured the requirements addressed general user expectations. This dual approach helped us create a balanced set of FRs and NFRs that reflect the real-world needs of SportSphere stakeholders.

### 3.3 Identified Functional Requirements (FRs)

#### 1. User Registration and Authentication

- **FR 1.1:** The system shall allow new users to register via email,
- **FR 1.2:** The system shall allow new users to register via phone number
- **FR 1.3:** The system shall allow new users to register via Google.
- **FR 1.4:** The system shall verify user identity during registration.
- **FR 1.5:** The system shall allow users to delete their account.
- **FR 1.6:** The system shall provide login and logout functionality
- **FR 1.7:** The system shall provide password reset functionality.

#### 2. User Profiles and Roles

- **FR 2.1:** A user shall be able to create their profile with details like name, profile picture, and location.
- **FR 2.2:** A user shall be able to update their personal profile.
- **FR 2.3:** The system shall support multiple user roles (Player, Venue Owner, Coach) and assign role-specific permissions.

#### 3. Player Features

- **FR 3.1:** The system shall allow players to search for venues by sport, location, price, and availability.



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- **FR 3.2:** The system shall allow players to host a game by specifying sport type, required number of players, approximate cost-sharing, and preferred venue/location within a certain distance range.
  - **FR 3.3:** The system shall allow players to view a list of hosted games matching their preferences.
  - **FR 3.4:** The system shall allow a player to request to join a hosted game.
  - **FR 3.5:** The system shall allow players to book a time slot at a venue.
  - **FR 3.6:** The system shall allow players to reschedule a venue booking.
  - **FR 3.7:** The system shall allow players to cancel a venue booking.
  - **FR 3.8:** The system shall allow players to search for coaches.
  - **FR 3.9:** The system shall allow players to view the profiles of coaches.
  - **FR 3.10:** The system shall allow players to hire a coach.
  - **FR 3.11:** The system shall notify players about suitable games based on their preferences.
  - **FR 3.12:** The system shall allow players to view their booked matches.
  - **FR 3.13:** The system shall send a reminder notification to a player before the start of each booked game.
  - **FR 3.14:** The system shall send a booking confirmation notification to the player immediately after a successful booking and payment.
  - **FR 3.15:** The system shall provide an AI assistant for Players that answers their queries and guides them.

## 4. Venue Management

- **FR 4.1:** The system shall allow venue owners to provide venue details (photos, amenities, parking info, sport types etc.).
- **FR 4.2:** The system shall allow venue owners to set slot prices, offers, and discounts.
- **FR 4.3:** The system shall show real-time availability of slots for each venue.
- **FR 4.4:** The system shall notify venue owners of new bookings, cancellations, or reschedules.
- **FR 4.5:** The system shall display a conflict warning to the venue owner if a booking clashes with a manually blocked slot.
- **FR 4.6:** The system shall allow venue owners to view their past and upcoming bookings.
- **FR 4.7:** The system shall provide a dedicated earnings dashboard for venue owners.
- **FR 4.8:** The system shall provide an AI-powered dashboard for Venue Owners summarizes bookings, reviews, revenue trends, and generates actionable business insights.

## 5. Coach Management

- **FR 5.1:** The system shall allow coaches to showcase their expertise, qualifications, and pricing.

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- **FR 5.2:** The system shall allow coaches to set availability, pricing, and training packages.
  - **FR 5.3:** The system shall provide a dedicated earnings dashboard for coaches.
  - **FR 5.4:** The system shall provide an AI-powered dashboard for Coaches that summarizes bookings, reviews, revenue trends, and generates actionable business insights.

## 6. Payments and Transactions

- **FR 6.1:** The system shall allow users to make payments via UPI.
- **FR 6.2:** The system shall allow users to make payments via debit/credit cards.
- **FR 6.3:** The system shall allow users to make payments via digital wallets.
- **FR 6.4:** The system shall maintain a transaction history for each user.
- **FR 6.5:** The system shall support refunds in case of cancellations as per policy.
- **FR 6.6:** The system shall allow venue owners and coaches to track earnings through a dashboard.

## 7. Reviews and Feedback

- **FR7.1:** The system shall allow players to rate and review venues and coaches.
- **FR7.2:** The system shall display average ratings and feedback on venue/coach profiles.

## 8. Administration

- **FR 8.1:** An admin shall be able to verify a user account.
- **FR 8.2:** An admin shall be able to restrict unverified user accounts from accessing core functionalities, including booking, rating, and submitting reviews.
- **FR 8.3:** An admin shall be able to monitor platform activity via a dashboard.
- **FR 8.4:** The system shall generate reports on user engagement metrics.

## 9. Help and Support

- **FR 9.1:** The system shall provide an in-app Help and Support section accessible to all users.
- **FR 9.2:** The system shall provide a FAQ section covering common problems.

## 3.4 Identified Non-Functional Requirements (NFRs)

### 1. System Performance and Reliability

- **NFR 1.1 (Response Time):** The system shall load search results and process bookings within seconds under normal network conditions.

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- **NFR 1.2 (Availability):** The system shall achieve 99% uptime, excluding scheduled weekly maintenance windows.
  - **NFR 1.3 (Data Integrity):** The system shall ensure real-time accuracy of booking availability to prevent any double-bookings.
  - **NFR 1.4 (Notification Delivery):** Critical notifications (booking, payment) must be delivered to the user within seconds of the triggering event.

## 2. Security and Privacy

- **NFR 2.1 (Secure Payments):** Payment transactions must be safe and confirmed within seconds.
- **NFR 2.2 (Data Privacy Control):** The system shall allow users to control the visibility of their personal profile information (e.g., full name, contact details).
- **NFR 2.3 (Account Safety):** The system shall enforce secure login with OTP verification.
- **NFR 2.4 (Verification):** The system shall include a process to verify coach certifications and validate venue registration to build user trust.

## 3. Usability and Accessibility

- **NFR 3.1 (Easy-to-Use Design):** The interface should be clean, minimal, and easy for beginners.
- **NFR 3.2 (Multi-Device Access):** The platform should work smoothly to provide a seamless experience on both mobile devices (browsers) and desktops.
- **NFR 3.3 (Clear Dashboards):** Venue owners and coaches should have easy-to-use dashboards to manage their pricing, and bookings..

## 4. Transparency and Trust

- **NFR 4.1 (Clear Pricing and Policies):** The system must display a complete breakdown of all charges, including taxes and fees, before the final payment step.
- **NFR 4.2 (Verified Reviews and Ratings):** The system shall only permit players who have completed a booking or attended a tournament to leave a review for that specific service.

## 5. Support and Help

- **NFR 5.1 (AI-Powered FAQ):** The AI FAQ shall provide accurate answers based on verified system knowledge and user queries to assist users efficiently.
- **NFR 5.2 (Customer Support Response):** Customer support inquiries shall receive an initial response within x business hours.
- **NFR 5.3 (Guidance and FAQs):** A help section and FAQs shall be available to address common problems and guide users.

## 6. Maintainability and Reliability

- **NFR 6.1 (Backup and Recovery):** The system database shall be backed up daily, with a plan to restore service within 4 hours in case of critical failure.
- **NFR 6.2 (Future Scalability):** The system shall handle a 50% increase in user traffic over 6 months without performance degradation.
- **NFR 6.3 (Consistent User Experience):** All user roles (Player, Venue Owner, Coach) shall have a stable and reliable experience.

## 4. User Stories

ID	Front of the card	Back of the card	FRs and NFRs
US 01	<b>Browsing Venues and Games</b>  <b>As a</b> non-registered user, <b>I want</b> to view venues and ongoing games, <b>So that</b> I can discover opportunities to join games or book a venue.	<b>Scenario 1: Successful Browsing</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am on the homepage or browse page,</li> <li>• <b>When</b> I navigate the venue and game listings,</li> <li>• <b>Then</b> I can see basic venue details and game information (date, time, participants) and be prompted to register or log in to join or book</li> </ul>	FR 3.1 FR 3.3
US 02	<b>Registering with an Email</b>  <b>As a</b> non-registered user, <b>I want</b> to sign up easily on the website, <b>So that</b> I can create an account and unlock additional features	<b>Scenario 1: Successful Account Creation</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a non-registered user on the "Sign Up" page,</li> <li>• <b>When</b> I enter a valid name, email, and a password, and click the "Sign Up" button,</li> <li>• <b>Then</b> my account is created, and I am redirected to a welcome page to set up my profile.</li> </ul> <b>Scenario 2: Attempting to Register with an Existing Email</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a non-registered user on the "Sign Up" page,</li> <li>• <b>When</b> I enter an email address that already exists in the system and submit the form,</li> <li>• <b>Then</b> I see an error message</li> </ul>	FR 1.1

		stating, "This email is already registered. Please log in."	
<b>US 03</b>	<b>Registering with a Google Account</b>  <b>As a</b> new visitor, <b>I want</b> to sign up for an account using my existing Google credentials, <b>So that</b> I can register quickly without having to create a new password.	<b>Scenario 1: Successful Google Sign-Up</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am on the "Sign Up" page,</li> <li>• <b>When</b> I click the "Sign up with Google" button and successfully authenticate with Google,</li> <li>• <b>Then</b> a SportSphere account is created using my Google email and name, and I am logged in</li> </ul>	<b>FR 1.3</b>
<b>US 04</b>	<b>Registering with Mobile Number</b>  <b>As a</b> new visitor, <b>I want</b> to sign up for an account using my mobile number, <b>So that</b> I can register quickly without needing to create an email account.	<b>Scenario 1: Successful Mobile Sign-Up</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am on the "Sign Up" page and have selected the phone number option,</li> <li>• <b>When</b> I enter my valid phone number, receive an OTP, and enter the correct OTP on the verification screen,</li> <li>• <b>Then</b> my account is created, and I am logged in.</li> </ul> <b>Scenario 2: Mobile Number Already Registered</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I enter a mobile number that already exists in the system,</li> <li>• <b>When</b> I submit the form,</li> <li>• <b>Then</b> I see an error message stating, "This mobile number is already registered. Please log in."</li> </ul>	<b>FR 1.2</b>

US 05	<p><b>Logging In and Out</b></p> <p><b>As a</b> registered user,  <b>I want</b> to securely log in and out of my account,  <b>So that</b> I can access my personalized content and protect my account when I'm done</p>	<p><b>Scenario 1: Successful Login with Email/Phone number</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am on the login page and have registered with an email,</li> <li>• <b>When</b> I enter my correct email/ and password and click "Log In,"</li> <li>• <b>Then</b> I am granted access to the application and redirected to my dashboard.</li> </ul> <p><b>Scenario 2: Unsuccessful Login</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am on the login page,</li> <li>• <b>When</b> I enter an incorrect email or password,</li> <li>• <b>Then</b> an error message "Invalid credentials, please try again" is displayed.</li> </ul> <p><b>Scenario 3: Logging Out</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am logged in,</li> <li>• <b>When</b> I click the "Log Out" button from the menu,</li> <li>• <b>Then</b> I am securely logged out, my session is ended, and I am redirected to the home/login page.</li> </ul>	FR 1.6 NFR 2.3
US 06	<p><b>Resetting a Forgotten Password</b></p> <p><b>As a</b> registered user who has forgotten their password,  <b>I want</b> to reset it using my registered email or phone number,  <b>So that</b> I can regain access to my account</p>	<p><b>Scenario 1: Resetting via Email</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I registered with an email address,</li> <li>• <b>When</b> I click the "Forgot Password?" link, enter my registered email, and click "Send Link,"</li> <li>• <b>Then</b> I receive an email containing a unique, time-limited link to reset my</li> </ul>	FR 1.7

		<p>password.</p> <p><b>Scenario 2: Resetting via Phone Number</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I registered with a phone number,</li> <li>• <b>When</b> I click the "Forgot Password?" link, enter my registered phone number, and click "Send OTP,"</li> <li>• <b>Then</b> I receive an OTP via SMS, which I must enter to verify my identity, and I can then set a new password.</li> </ul>	
US 07	<p><b>Deleting My Account</b></p> <p><b>As a</b> registered user, <b>I want</b> to permanently delete my account and personal data, <b>So that</b> I can stop using the platform without leaving behind my data.</p>	<p><b>Scenario 1: Confirming Account Deletion</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am logged in and have navigated to the 'Account Settings' page,</li> <li>• <b>When</b> I click "Delete Account" and confirm my choice in the confirmation pop-up,</li> <li>• <b>Then</b> my account and all associated personal data are permanently deleted from the system.</li> </ul>	FR 1.5
US 08	<p><b>Managing My Profile</b></p> <p><b>As a</b> player, <b>I want</b> to update my personal profile information, <b>So that</b> my details are always current for other users to see.</p>	<p><b>Scenario 1: Editing Profile Details</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am logged in and on my 'Edit Profile' page,</li> <li>• <b>When</b> I change my details and click 'Save',</li> <li>• <b>Then</b> a success message is displayed, and my profile now shows the updated details.</li> </ul>	FR 2.2 NFR 2.2

US 09	<b>Searching for Venues</b>  <b>As a</b> player, <b>I want</b> to search and filter venues by sport, location, and price, <b>So that</b> I can easily find a suitable place to play that matches my preferences.	<b>Scenario 1: Search with Filters</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a logged-in player on the 'Find a Venue' page,</li> <li>• <b>When</b> I filter by "particular sport", select a price range, and enter "particular city" as the location,</li> <li>• <b>Then</b> the search results display a list of venues that match all the applied filters</li> </ul>	FR 3.1
US 10	<b>Selecting a Venue Slot</b>  <b>As a</b> player, <b>I want</b> to select a specific venue and choose an available date and time slot, <b>So that</b> I can proceed to checkout.	<b>Scenario 1: Successful Slot Selection</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a logged-in player on a venue's detail page,</li> <li>• <b>When</b> I select an available date and time slot from the calendar and click "Proceed to Book",</li> <li>• <b>Then</b> the system reserves the slot for a short period (e.g., 10 minutes) and redirects me to the payment confirmation page.</li> </ul> <b>Scenario 2: Slot Becomes Unavailable</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am viewing a time slot that another user books simultaneously,</li> <li>• <b>When</b> I try to select that slot,</li> <li>• <b>Then</b> the system shows an error message indicating the slot is no longer available and prompts me to select another time.</li> </ul>	FR 3.5
US 11	<b>Paying for a Booked Slot</b>	<b>Scenario 1: Successful Payment</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am on the payment</li> </ul>	FR 6.1 FR 6.2 FR 6.3



	<p><b>As a</b> player who has selected a time slot,  <b>I want</b> to complete the payment securely,  <b>So that</b> I can confirm my booking.</p>	<p>confirmation page with a selected slot,</p> <ul style="list-style-type: none"> <li>• <b>When</b> I complete the payment using an available option (e.g., UPI, card, wallet),</li> <li>• <b>Then</b> the system confirms my booking and marks the slot as 'Booked'.</li> </ul> <p><b>Scenario 2: Payment Failure</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am attempting to pay for a booking,</li> <li>• <b>When</b> the payment fails,</li> <li>• <b>Then</b> the system shows a payment failure message and allows me to retry without losing my reserved slot (within the time limit).</li> </ul>	
<b>US 12</b>	<p><b>Receiving Booking Notifications</b></p> <p><b>As a</b> player or venue owner,  <b>I want</b> to be notified immediately after a booking is successfully confirmed,  <b>So that</b> I have a record and can prepare for the game.</p>	<p><b>Scenario 1: Notification on Successful Booking</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> a player has successfully completed payment for a venue slot,</li> <li>• <b>When</b> the booking is confirmed by the system,</li> <li>• <b>Then</b> the system sends a confirmation notification to the player and a new booking notification to the venue owner.</li> </ul>	<b>FR 3.14 FR</b>
<b>US 13</b>	<p><b>Receiving Game Reminders</b></p> <p><b>As a</b> player,  <b>I want</b> to receive a notification before my booked game starts,  <b>So that</b> I don't forget and miss my scheduled playtime.</p>	<p><b>Scenario 1: Pre-Game Reminder Notification</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I have a game booked for 6 PM today,</li> <li>• <b>When</b> the time is 5:30 PM (30 minutes before the game),</li> <li>• <b>Then</b> I receive a push notification on my device reminding me of the venue,</li> </ul>	<b>FR 3.13</b>

		time, and game details.	
US 14	<b>Getting Notified About Nearby Games</b>  <b>As a</b> player, <b>I want</b> to get notified about games happening nearby of my chosen sports, <b>So that</b> I may join them easily without missing opportunities.	<b>Scenario: Receiving a Nearby Game Notification</b>  <ul style="list-style-type: none"> <li>• <b>Given</b> I have enabled notifications and set my preferred location range and preferred sports,</li> <li>• <b>When</b> another player creates a game within that distance,</li> <li>• <b>Then</b> I receive a notification with game details including venue, date, time, and number of players needed.</li> </ul>	FR 3.11
US 15	<b>Viewing My Booked Matches</b>  <b>As a</b> player, <b>I want</b> to see all my booked matches, <b>So that</b> I can easily track and manage my upcoming and past games.	<b>Scenario: Viewing Booked Matches</b>  <ul style="list-style-type: none"> <li>• <b>Given</b> I am a logged-in player,</li> <li>• <b>When</b> I navigate to the "My Matches" section,</li> <li>• <b>Then</b> I see a list of all my booked matches, separated into upcoming and past games, and each match displays the venue name, date, time, and participants.</li> </ul>	FR 3.12
US 16	<b>Cancelling a Venue Booking</b>  <b>As a</b> player, <b>I want</b> to cancel an upcoming booking, <b>So that</b> I can free up the slot and receive a refund based on the cancellation policy.	<b>Scenario 1: Cancelling Within the Refund Period</b>  <ul style="list-style-type: none"> <li>• <b>Given</b> I have a confirmed booking and the venue's policy allows refunds up to y hours before,</li> <li>• <b>When</b> I cancel my booking x hours in advance through the 'My Bookings' page,</li> <li>• <b>Then</b> the booking is cancelled, and a refund is automatically processed to my original</li> </ul>	FR 3.7 FR 6.5

		<p>payment method.</p> <p><b>Scenario 2: Cancelling Outside the Refund Period</b></p> <ul style="list-style-type: none"> <li>Given I have a confirmed booking but the cancellation window for refunds has expired,</li> <li>When I cancel the booking,</li> <li>Then the booking is cancelled,</li> <li>And I am shown a message that no refund is available according to the policy.</li> </ul>	
US 17	<p><b>Hosting a Game for Others to Join</b></p> <p><b>As a</b> player, <b>I want</b> to host a game by defining its details, <b>So that</b> I can find other players to join me at a venue.</p>	<p><b>Scenario 1: Successfully Hosting a Game</b></p> <ul style="list-style-type: none"> <li><b>Given</b> I am on the "Host Game" page,</li> <li><b>When</b> I fill in all required details (sport type, number of players, cost, and location) and click "Submit,"</li> <li><b>Then</b> the game is created, made visible to other players, and notifications are sent to those with matching preferences.</li> </ul>	FR 3.2
US 18	<p><b>Joining Another Player's Game</b></p> <p><b>As a</b> player, <b>I want</b> to send a request to join another player's game, <b>So that</b> I can team up with others and play.</p>	<p><b>Scenario 1: Sending a Join Request</b></p> <ul style="list-style-type: none"> <li><b>Given</b> I am a logged-in player viewing a game hosted by another player,</li> <li><b>When</b> I click "Request to Join" and the host approves my request,</li> <li><b>Then</b> I am added to the list of participants and receive a confirmation notification.</li> </ul>	FR 3.4

		<b>Scenario 2: Preventing Duplicate Requests</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I have already sent a request to join a game,</li> <li>• <b>When</b> I attempt to send another request,</li> <li>• <b>Then</b> the system prevents duplicates and notifies me that my request is pending.</li> </ul>	
US 19	<b>Listing a Venue</b>  <b>As a</b> venue owner, <b>I want</b> to list my venue with its basic details, <b>So that</b> players can discover and book my venue.	<b>Scenario: Listing a New Venue</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a logged-in venue owner,</li> <li>• <b>When</b> I navigate to the “Add Venue” section, enter required details (name, photos, sports location, contact info, and price), and click “Save Venue,”</li> <li>• <b>Then</b> my venue is published and becomes visible in player search results.</li> </ul>	<b>FR 4.1</b> <b>FR 4.2</b> <b>NFR 4.1</b>
US 20	<b>Managing Venue Availability</b>  <b>As a</b> venue owner, <b>I want</b> to edit available time slots for my venue, <b>So that</b> players can only book times that are valid and available	<b>Scenario 1: Editing a Time Slot</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a logged-in venue owner on my venue management dashboard,</li> <li>• <b>When</b> I add/update/delete an available slot,</li> <li>• <b>Then</b> the slot reflects the updated timing in the booking interface.</li> </ul>	<b>FR 4.3</b>
US 21	<b>Tracking Venue Bookings</b>  <b>As a</b> venue owner, <b>I want</b> to see a list of all past and upcoming bookings for my venue,	<b>Scenario 1: Viewing the Bookings List</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am on my venue dashboard,</li> <li>• <b>When</b> I navigate to the 'All</li> </ul>	<b>FR 4.6</b> <b>NFR 3.3</b>

	<p><b>So that</b> I can easily track and manage my business operations</p>	<p>Bookings' section,</p> <ul style="list-style-type: none"> <li>• <b>Then</b> a list is displayed showing player names, dates, times, and payment status for every booking.</li> </ul>	
US 22	<p><b>Searching for a Coach</b></p> <p><b>As a</b> player, <b>I want</b> to search for a coach based on sport and experience, <b>So that</b> I can find the right coach to improve my skills.</p>	<p><b>Scenario 1: Successful Coach Search</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am on the 'Find a Coach' page,</li> <li>• <b>When</b> I filter by "particular sport" and "x+ years experience",</li> <li>• <b>Then</b> a list of coaches matching these criteria is displayed with their profiles.</li> </ul>	<p><b>FR 3.8</b> <b>FR 3.9</b></p>
US 23	<p><b>Managing Coach Profile and Availability</b></p> <p><b>As a</b> coach, <b>I want</b> to create my professional profile and set my available hours, <b>So that</b> players can find me and book my training sessions.</p>	<p><b>Scenario 1: Setting Weekly Availability</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a logged-in coach on my 'Availability' page,</li> <li>• <b>When</b> I set my schedule to be available every Monday and Wednesday from 4 PM to 6 PM,</li> <li>• <b>Then</b> these time slots become visible and bookable for players viewing my profile.</li> </ul>	<p><b>FR 5.1</b> <b>FR 5.2</b></p>
US 24	<p><b>Tracking Earnings</b></p> <p><b>As a</b> coach or venue owner, <b>I want</b> to see my transaction history and total earnings, <b>So that</b> I can track the revenue I generate from the platform.</p>	<p><b>Scenario 1: Viewing the Earnings Dashboard</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a logged-in coach or venue owner,</li> <li>• <b>When</b> I navigate to the 'Earnings' or 'Wallet' section of my dashboard,</li> <li>• <b>Then</b> a summary of my total earnings, a list of recent transactions, and payment settlement details are displayed.</li> </ul>	<p><b>FR 4.7</b> <b>FR 5.3</b> <b>FR 6.4</b></p>

US 25	<p><b>Reviewing a Completed Session</b></p> <p><b>As a</b> player who has completed a game or a training session,  <b>I want</b> to give the venue or coach a star rating and write a review,  <b>So that</b> I can share my experience with the community..</p>	<p><b>Scenario 1: Leaving a Review for a Venue</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I have a completed venue booking in my history,</li> <li>• <b>When</b> I navigate to my past bookings and click "Leave a Review" for that venue,</li> <li>• <b>Then</b> I am taken to a screen where I can submit a star rating and a text comment for the venue.</li> </ul> <p><b>Scenario 2: Leaving a Review for a Coach</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I have a completed coaching session in my history,</li> <li>• <b>When</b> I navigate to my past sessions and click "Review Coach",</li> <li>• <b>Then</b> my review is saved and displayed on the coach's public profile.</li> </ul>	FR 7.1 FR 7.2 NFR 4.2
US 26	<p><b>Accessing the Help Center</b></p> <p><b>As a user</b> who is confused or has a problem,  <b>I want</b> to access a Help and Support section,  <b>So that</b> I can find answers to common questions or learn how to contact customer support.</p>	<p><b>Scenario 1: Accessing Help Center</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am on any page of the application,</li> <li>• <b>When</b> I click on the "Help and Support" link in the navigation menu,</li> <li>• <b>Then</b> I am redirected to the Help Center page containing FAQs, guides, and contact options.</li> </ul>	FR 9.1 FR 9.2 NFR 5.2 NFR 5.3
US 27	<p><b>Monitoring Platform Health</b></p> <p><b>As an Admin</b>,  <b>I want</b> to view a dashboard with platform activity metrics,</p>	<p><b>Scenario 1: Viewing Key Metrics</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a logged-in Admin on the dashboard,</li> <li>• <b>When</b> I open the "Overview" section,</li> </ul>	FR 8.3

	<p><b>So that</b> I can monitor usage trends and ensure smooth operations.</p>	<ul style="list-style-type: none"> <li>• <b>Then</b> I see key statistics such as number of new users, active bookings, total revenue, and recent reviews.</li> </ul>	
US 28	<p><b>Restricting Unverified User Accounts</b></p> <p><b>As an</b> Admin, <b>I want</b> to restrict unverified user accounts from accessing core features, <b>So that</b> only verified users can book venues, rate, or submit reviews.</p>	<p><b>Scenario 1: Restricted Access for Unverified Users</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> a user account is marked as unverified,</li> <li>• <b>When</b> the user attempts to book a venue, rate, or submit a review,</li> <li>• <b>Then</b> the system prevents the action and shows a message: "Please verify your account to access this feature."</li> </ul>	FR 8.2
US 29	<p><b>Booking a Coach</b></p> <p><b>As a</b> player, <b>I want</b> to book a session with a coach for an available date and time slot, <b>So that</b> I can receive personalized training without scheduling conflicts.</p>	<p><b>Scenario 1: Successful Booking</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I have selected a coach from the search results,</li> <li>• <b>When</b> I choose an available date and time slot and confirm the booking,</li> <li>• <b>Then</b> the system schedules the session, sends me a confirmation notification, and updates the coach's calendar.</li> </ul>	FR 3.10
US 30	<p><b>Player AI Assistance</b></p> <p><b>As a</b> Player, <b>I want</b> AI assistance to get answers and guidance, <b>So that</b> I can resolve issues or find information quickly.</p>	<p><b>Scenario 1: Using AI Assistance</b></p> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a logged-in Player on the platform,</li> <li>• <b>When</b> I ask the AI for help or guidance,</li> <li>• <b>Then the</b> system provides relevant answers.</li> </ul>	FR 3.15 NFR 5.1

<b>US 31</b>	<b>Venue Owner and Coach AI Insights</b>  <b>As a</b> Venue Owner or Coach, <b>I want</b> an AI assistant that summarizes my bookings, reviews, and revenue trends, <b>So that</b> I can optimize my business decisions.	<b>Scenario 1: AI Provides Insights</b> <ul style="list-style-type: none"> <li>• <b>Given</b> I am a logged-in Venue Owner or Coach,</li> <li>• <b>When</b> I request information on bookings, sessions, or earnings,</li> <li>• <b>Then</b> the system presents a clear summary and actionable insights.</li> </ul>	<b>FR 4.8</b> <b>FR 5.4</b> <b>NFR 5.1</b>
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## 5. Division of Requirements into EPICs

### EPIC 1: Account Creation and User Access

**Goal :** Covers how users create, access, and manage their accounts. This is the foundation of the platform.

**User Stories:** US 01, US 02, US 03, US 04, US 05, US 06, US 07, US 08

#### Sprint 1: Core Registration and Login

**Goal:** Allow users to browse the site, create an account with email, then log in.

##### Tasks:

- Display homepage with venues/games overview (for non-registered users)
- Implement e-mail sign-up and login functionality.

#### Sprint 2: Authentication and Account Security and Profile Updation

**Goal:** Allow users to manage their basic Profile. Add alternative sign-up methods and crucial account security features like password reset and account deletion.

##### Tasks:

- Implement secure login and logout.



- 
- Add Google and Phone Number as alternative login options.
  - Add an account deletion option.
  - Enable users to update their profile information (name, picture, location, etc.).

## **Epic 2: Venue and Coach Marketplace**

**Goal:** To create the central marketplace where players can discover venues and coaches through robust search and filtering capabilities.

- **User Stories:**

US 09, US 19 , US 20, US 21, US 22, US 23

## **Sprint 3: Marketplace Setup**

**Goal :** Allow users to search for venues and coaches, and enable owners/coaches to manage listings and availability.

- Venue and coach search.
- Venue listing and availability management.
- Coach profiles and availability scheduling.

## **Epic 3: Booking and Payments**

**Goal:** To build a seamless, end-to-end system for booking services, processing secure payments, and managing all related transactions.

- **User Stories:**

US 10, US 11, US 12, US 13 , US 15, US 16 , US 29, US 24

## **Sprint 4: Core Booking System**

**Goal:** Develop the primary user workflow for booking a service, from selecting a time slot to receiving confirmations.

- Slot selection, booking flow, booking history.
- Notifications and reminders.

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## Sprint 5: Payments and Financials

**Goal:** Integrate a secure, multi-option payment system and provide essential financial management tools for coaches/venue owners.

- Payment integration (UPI, card, wallets).
- Refund handling and transaction history.
- Earnings dashboard for coaches/venue owners.

## Epic 4: Player Community and Games

**Goal:** To achieve player-to-player engagement by enabling players to host and join games with each other.

- **User Stories:**  
US17, US18, US14

## Sprint 6: Player Community Features

**Goal:** Core features that allow players to create and find community-hosted games.

- Hosting/joining games.
- Nearby game notifications based on preferences.

## Epic 5: Reviews, Support and Trust

**Goal:** To build user trust and provide reliable assistance through a transparent feedback system and accessible support channels.

- **User Stories:**  
US25, US26

## Sprint 7: Engagement and Support

**Goal:** Implement a comprehensive user review system and Help Center with FAQ Section.

- Reviews and ratings (venues or coaches).

- 
- Help Center with FAQs and contact.

## **Epic 6: Administration and AI Assistance**

**Goal:** To provide administrators with platform monitoring tools and enhance the user experience with AI-powered assistance.

- **User Stories:**  
US27, US30, US31, US32

## **Sprint 8: Admin and AI Tools**

**Goal:** Implement administrative dashboard for platform oversight and integrate an AI assistant to support all user types.

- Admin dashboards (platform health, metrics).
- AI chat/assistant for players, venues, and coaches.

# **6. Conflict Identification Between EPICs(or Sprints)**

## **Conflict 1: Pricing Transparency vs. Revenue Optimization**

- **Conflicting Epics:** EPIC 2 (Venue and Coach Marketplace) and EPIC 3 (Booking and Payments).
- **Players:** Require transparent pricing to make informed decisions. The system must allow them to search for venues by price and display a full cost breakdown before payment.
- **Venue Owners and Coaches:** Need the flexibility to set their own slot prices, create offers, and define custom training packages to manage their business and maximize revenue.
- **Conflict:** The need for owners and coaches to implement pricing strategies to optimize their earnings can conflict with the players' demand for simple, transparent, and easily comparable pricing.

## **Conflict 2: Booking Flexibility vs. Business Stability**

- 
- **Conflicting Epics:** EPIC 3 (Booking and Payments).
  - **Players:** Require the convenience of being able to reschedule or cancel bookings and expect support for refunds.
  - **Venue Owners and Coaches:** Rely on a stable schedule of confirmed bookings for their revenue. Their ability to track earnings is directly impacted by cancellations, which can lead to financial loss.
  - **Conflict:** The player-centric cancellation and refund features in **EPIC 3** create instability for the Venue Owner. A last-minute cancellation, while convenient for the player, re-opens an empty slot that the owner may not be able to fill, directly undermining the management and revenue-generating tools provided in **EPIC 2**.

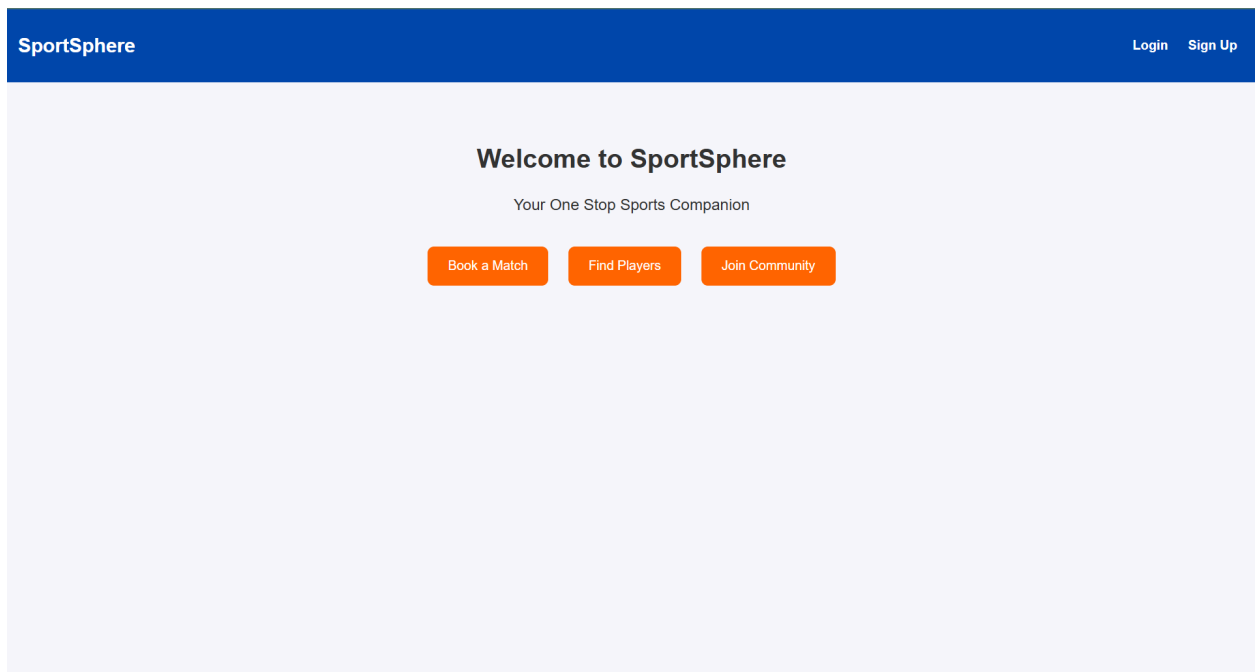
### **Conflict 3: Open Feedback vs. Reputation Management**

- **Conflicting Epics:** EPIC 5 (Reviews, Support and Trust).
- **Players:** Need to be able to leave honest ratings and reviews to share their experiences, which is essential for building a trusted community.
- **Venue Owners and Coaches:** Depend on positive ratings and reviews to build their professional credibility and attract new clients. Their businesses are vulnerable to unfair or malicious negative feedback.
- **Conflict:** There is a direct conflict between the players' desire for uncensored feedback and the venue owners' and coaches' need to protect their professional reputations from unfair damage.

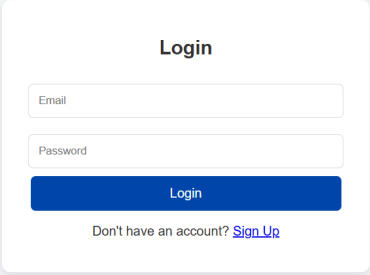
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## 7. Proof of Concept (POC) for Sprint 1

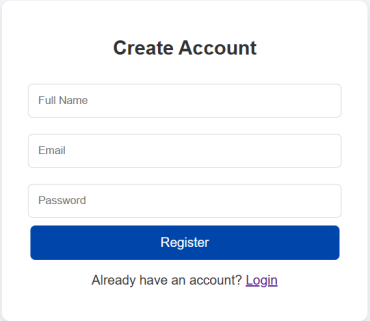
- **Objective of Sprint 1:** Allow new visitors to explore the platform and register.
- **Implemented Feature:**
  - Developed the frontend for the homepage, login page, and signup page with basic UI.
  - Implemented the backend to handle user registration and login using email and password.
  - Designed and implemented a database schema to securely store user credentials with encryption.
- **Screenshots:**



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A login form titled "Login" centered on a light blue background. It features two input fields: "Email" and "Password". Below these fields is a blue button labeled "Login". At the bottom, there is a link that says "Don't have an account? [Sign Up](#)".



A "Create Account" form centered on a light blue background. It includes three input fields: "Full Name", "Email", and "Password". Below the "Password" field is a blue button labeled "Register". At the bottom, there is a link that says "Already have an account? [Login](#)".

## 8. GitHub Project Repository

Repository Link: [Click Here](#)

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## 9. Team Member Contributions

### 1. Stakeholder Identification

- All group members participated in brainstorming sessions to identify potential stakeholders.

### 2. Interviews with Stakeholders:

- Questions were discussed and finalized by the group.
- **Created by:** Prasham Shah, Sujal Prajapati
- **Conducted by:** Sujal Prajapati, Maanav Gurubaxani

### 3. Surveys for Stakeholders:

- Survey questions were discussed and finalized by the group.
- **Created/Distributed by :** Diya Patel, Yesha Joshi

### 4. Identification of Functional and Non-Functional Requirements:

- **FRs Created by:** Diya Patel, Yesha Joshi
- **NFRs Created by:** Yug Tejani, Prasham Shah
- FRs and NFRs were discussed by the Group.

### 5. User Story Development:

- **Created by:** Vivek Parmar, Harsh Maheriya, Vraj Parikh, Diya Patel, Yesha Joshi, Yug Tejani, Prasham Shah
- All User Stories were discussed by the Group.

### 6. EPICandSprints Creation:

- **EPICs Created by:** Vivek Parmar, Harsh Maheriya
- **Sprints Created by:** Jas Mehta
- All EPICS and Sprints were discussed by the Group

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## 7. Conflict Identification Between EPICs:

Yesha Joshi, Diya Patel

## 8. Frontend and Backend Implementation:

- **Frontend:** Maanav Gurubaxani, Vraj Parikh, Sujal Prajapati, Prasham Shah
- **Backend:** Harsh Maheriya, Jas Mehta