

eCommerce Website Documentation

Dimitris C. Zoumpakis [redacted]

CSE350 – E-Commerce and the Internet

Dr. Katerina Papanikolaou

Department of Sciences, B.Sc. Computer Information Systems, European University

Cyprus

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Section A: Web Site Identification

Business Overview – What is Paddy?

Paddy is a niche online platform designed specifically for the padel sports community. Padel, a rapidly growing racquet sport worldwide, especially popular in Europe, currently lacks comprehensive digital platforms that combine both community engagement and eCommerce functionalities tailored to its unique audience. Paddy aims to fill this gap by offering a centralized, easy to use hub where players, clubs, and fans can connect and interact seamlessly.

The platform's core value proposition includes:

Court Booking System: Users can search for, check availability, and book padel courts near them, making the traditionally fragmented booking process more streamlined and user-friendly.

Matchmaking and Community Features: Paddy plans to offer a matchmaking service where players can find opponents or teammates matching their skill level, availability, and location, promoting active participation and growth in the sport.

Merchandise eCommerce: Complementing these services, Paddy will eventually offer branded merchandise—from clothing to accessories—creating an additional revenue stream and a strong brand identity.

Purpose of the Website

The main goal of the Paddy website is to provide a dedicated digital platform that integrates essential services for the padel community. It aims to simplify and enhance the experience of padel players by offering:

- A seamless court booking experience that reduces the administrative burden on clubs while providing players with an easy, transparent scheduling tool.

- A matchmaking engine that helps users find suitable playing partners based on skill, location, and schedule, thereby fostering an engaged and active community.
- A statistics and leaderboard system that motivates competition and tracks player progress, encouraging ongoing participation.
- A merchandise store where users can purchase padel-related gear, strengthen brand loyalty and support a sustainable business model.

By combining these features, Paddy seeks to become more than just a utility, it aims to build a vibrant community around the sport, leveraging digital tools to make padel more accessible, enjoyable, and connected. The combination of convenience, personalization, and digital innovation defines the purpose behind Paddy's development.

Target Audience

- Amateur and semi-professional players (ages 18–32), who are the most active segment, eager to improve their game, socialize, and compete locally.
- Padel clubs and venues considering or searching for an efficient way to manage court bookings and attract players.
- Coaches and trainers who want to promote lessons and connect with potential clients.
- Sports enthusiasts and fans interested in player stats, leaderboards, and events.
- Potential sponsors and merchandise buyers seeking to reach a targeted sports demographic.

The target audience is highly specific, allowing Paddy to tailor its features, marketing, and design to a group that is both enthusiastic and underserved.

Core Functionalities

Currently, the website offers:

Homepage: A dynamic landing page featuring a bold hero image, introductory text explaining Paddy's mission, and clear call to action guiding users to book courts or sign up.

Court Booking System: Integrated via the Bookly plugin, allowing users to view available courts and reserve slots. Though still in early testing with dummy data, this functionality is central to Paddy's operational success.

Leaderboard and Player Stats: Conceptual for now, these features are designed to track match results, player rankings, and statistics to boost engagement. Once implemented, they will be integral to the user experience.

WooCommerce Integration: The foundation for the merchandise store is set up, ready to be configured with products, cart functions, and payment gateways. Product addition and checkout processes are tested, albeit without final payment gateway integration.

Supporting Pages: About, Contact, Account (for user management), and Cart complete the core site structure. These ensure users have a coherent and complete browsing experience.

Use Case Scenarios

1. Anna, a new player, quickly finds and books an available court slot for a weekend game, receiving immediate confirmation.
2. Nico, a competitive player, searches for opponents at his skill level using the future matchmaking feature to arrange weekly matches.
3. David, a coach, monitors the leaderboard to spot emerging talent and offers training sessions to top players.
4. Maya, a casual padel fan, browses and purchases branded clothing and accessories when the eCommerce store launches.
5. Leo, a club manager, registers his courts on the platform once the booking system stabilizes, simplifying daily operations.

These scenarios illustrate the versatility of the platform across different user types and highlight how the functionalities meet real user needs.

Business Model Summary

Paddy's business model leverages multiple revenue streams:

Freemium Service: Basic free court booking and matchmaking features with premium paid options like advanced statistics, priority booking, or an ad-free experience.

Commission on Bookings: A small fee per court reservation generates steady income while encouraging high booking volume.

Merchandise Sales: Direct sales of branded products and potential affiliate partnerships with equipment suppliers.

This hybrid model balances user acquisition and monetization, targeting growth in the expanding global padel market, which has seen significant year-over-year increases in participation. The layered approach ensures Paddy can grow with its community.

Section B: Technical Characteristics

Website Platform and Technologies

Paddy is built on WordPress, chosen for its flexibility, widespread support, and rich plugin ecosystem that accelerates development without requiring extensive custom coding. WordPress runs PHP on the backend with a MySQL database, a robust, well-understood stack that's easy to host and maintain. This setup lets Paddy leverage powerful pre-built tools such as WooCommerce (for eCommerce), Bookly (for booking), and Elementor (for drag-and-drop page design), enabling rapid iteration and refinement.

The platform supports further customization through themes and custom plugins. The WordPress environment offers a balance between technical power and ease of use, allowing non-developers to contribute to content and design as needed.

Design and User Interface

The site employs a mobile-first responsive design to ensure smooth usability across smartphones, tablets, and desktops. The visual style is clean and modern, featuring bright sporty colors inspired by padel culture greens, blues, and whites to evoke energy and freshness.

The homepage features a large hero banner with clear call-to-action buttons (“Book a Court,” “Join the Community”), utilizing effective conversion principles.

Navigation menus are intuitive and organized around core user actions (Booking, Matchmaking, Store). Accessibility is emphasized through high-contrast text and alt text on images.

This design philosophy ensures users of varying abilities and devices can navigate and interact with the platform efficiently, encouraging repeat visits and sustained engagement.

Core Functionalities in Depth

1. Court Booking System

Powered by Bookly, this system offers:

Real-time calendar views of court availability.

User registration and login for booking management.

Email confirmations and reminders.

Admin backend for court managers to update schedules.

Currently using test data, it is designed to scale to multiple courts and locations, with future integration of payment gateways for deposits or full payments. Testing has confirmed that the process from viewing availability to completing a booking is functional.

2. User Account Management

Using WordPress’s native system enhanced with WooCommerce, users can:

View and manage bookings.

Track match history and stats (future).

Manage payment and order history.

Customize profiles including skill levels and preferred times.

Security best practices include strong passwords and CAPTCHA to prevent unauthorized access. As the system matures, additional layers such as two-factor authentication can be introduced.

3. Matchmaking and Leaderboard (Conceptual)

These upcoming features will be key to community engagement:

AI algorithms match players based on skill, proximity, and schedule.

Leaderboards display rankings to encourage competition.

Notifications for match invites and rank updates.

Building these requires custom backend services and third-party analytics. These features are in the early conceptual stages, but mockups and initial planning documents exist.

4. eCommerce Store

Built on WooCommerce, the store will offer:

Product catalogs (apparel, gear).

Shopping cart and checkout.

Payment gateways (credit cards, PayPal, future crypto).

Order tracking and customer service.

This is critical to diversify revenue and boost brand visibility. Testing confirms that adding products to cart and checking out works as intended, with payment integration to follow.

Security Considerations

Handling user data, bookings, and payments means security is a priority:

SSL encryption across the site.

Use of secure, vetted plugins.

Regular backups and disaster recovery plans.

GDPR-compliant data privacy with explicit user consent.

Strong authentication and monitoring for suspicious activity.

Security remains a top concern, and the development roadmap includes steps for hardening WordPress, enforcing HTTPS, and applying regular plugin updates.

Performance and Scalability

Initial hosting supports launch traffic with plans to:

Upgrade hosting as user base grows.

Use cloud services for matchmaking and stats processing.

Optimize database queries.

Testing shows the site functions under normal load but performance could degrade with heavy plugin use—indicating a future need for CDN and caching strategies.

Integration and API Use

Google Maps API to show court locations.

Payment gateway APIs for smooth transactions.

Social media APIs to share achievements and events.

Potential sports data APIs for enriched statistics.

These integrations add functionality, and their implementation will be staged according to the project's technical timeline.

Section C: Website Quality

Functionality

The booking tool is functional but simulated; WooCommerce store is in progress.

Site structure supports future matchmaking and leaderboards.

Pages load properly and navigation is smooth.

Usability

User-friendly layout with clear calls to action.

Responsive design works well across devices.

Navigation bar aids orientation.

Reliability

Stable performance in local testing.

No critical plugin failures have been observed.

Consistent functionality during sessions.

Performance

LocalWP environment slows under heavy plugin load.

Elementor adds page load times.

Maintainability

Easy to update through Elementor.

Modular plugins simplify upgrades.

Content updates and future scaling feasible.

Security

SSL and secure login not yet configured live.

WooCommerce payment security incomplete.

No anti-spam or firewall plugins active.

Final Remarks and Future Steps

Paddy stands as a forward-thinking platform in the padel niche, combining user engagement and eCommerce features into one convenient site. Despite its academic prototype status, it shows strengths in business modeling, technical development, and UX design.

The process has highlighted key learnings around plugin compatibility, customization, and the importance of responsiveness and performance optimization. The path ahead involves completing the booking system testing, launching user registration and profiles, securing the WooCommerce checkout, deploying to a live host with SSL, and thorough mobile and accessibility testing.

In summary, Paddy's goal is to streamline padel activities and foster a vibrant community through a user-centered, technically sound platform. The combination of court booking, matchmaking, performance tracking, and eCommerce represents a unique opportunity to grow alongside the sport itself. Through continued development, Paddy will not only meet but exceed the expectations of its users, contributing to the digital evolution of padel sports.