



Design for an Integrated Reservation & Social Portal

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This wireframe shows the main dashboard. On the left, a large placeholder for a user profile picture is labeled "Welcome Back, Name, Name". Below it, a green box displays "Member of Penn Tennis Center" and "So far in 2024, you played tennis on 20 days.". The central area shows "YOUR RESERVATIONS" for Nov 16 (Sat) 19:00 - 20:00 on Court 1. To the right, there's a "FRIENDS' RESERVATIONS" section with four user icons and a "See more in FRIEND-ZONE" link.

This wireframe shows a search interface for December 12, Thursday. It includes a date selector, location dropdown, and a map of Philadelphia with numbered court locations. Results for "Penn Tennis Center" (Court 1), "Buckley Courts (Drexel University)" (Court 2), "Request Club of Philadelphia" (Court 3), and "Schuylkill River Park" (Court 4) are listed with time filters (Morning, Afternoon, Evening).

BACKGROUND

This project was inspired by current Penn Tennis Center's portal (right top figure), with its rather confusing categorization and rather primitive design features. In addition, Philadelphia currently does not have a centrally managed tennis court reservation portal, as New York City or San Francisco has. The only available court finder would be TennisPhilly.com (right bottom figure), a division of Tennis League Network which is an NGO. It also has limited capacity to keep tennis lovers stay informed about court locations, contacts, and availability. This project's scope is to combine court finder features and use cases of TennisPhilly.com and court reservation as well as individual portal management of Penn Tennis Center to form a comprehensive platform which can be the "one-stop shop."

Hence, I aim to design a template for tennis court reservation portal, which can be adopted and customized by tennis club websites or city public tennis court reservation platforms that contains integrated features while ensuring aesthetic consistency and vibrancy. The new design should enhance usability so that the users can easily navigate and book the desired courts at desired time.

RESEARCH, SYNTHESIS, AND KEY TAKEAWAYS

METHOD Surveys + Interviews

USER PROFILE Young adults (age 20-35) tennis lovers who frequently utilize online portal or websites to reserve tennis courts or book lessons, whether a school, club, or public one.

RESEARCH FOCUS Major Roadblock with Current Reservation Systems

- Court availability is not indicated and not real-time
- Reservation section is hard to find / navigate
- Text verification can be daunting
- Account setup and activation is not as straightforward
- Lack of communication on which days courts are not taken due to events
- Require 2 users to book courts, but name-finding filter is not well-built

KEY TAKEAWAYS HOW MIGHT WE REDESIGN?

- Simplify the sign-up, log-in, and navigation process to find court reservation for both new users and recurring users?
- Add transparency and synchronization to keep all users informed about all information they need to book a court, including but not limited to reservation rules, location, availability?
- Reshape the tennis portal to include more community-building and socializing features?
- Add more features that can be personalized or customized to better adapt to user's needs and fasten the reservation process?

SKETCHES & WIREFRAME

This wireframe shows the "Court Finder" interface. It includes a date selector (Nov 16, Tues) and a location dropdown (Philadelphia). A map of Philadelphia shows numbered court locations. A "Log In" button is visible in the top right.

COURT FINDER

The court finder interface is designed to have three key features: filter and search bar on top, results towards the left side, and a map indicating relative locations of all results in the city on the right side. This page is designed so that anyone can view courts location and availability without login. However, to further proceed the reservation process, users would need to have a registered account, where their personal information, contacts, club membership, and payment information are stored.

This wireframe shows the "Personal Portal" landing page. It includes a "Welcome Back, Your name" section with a placeholder profile picture and a "Member of Penn Tennis Center" message. Below it, a "FRIENDS' RESERVATIONS" section shows four user icons and a "See more in FRIEND-ZONE" link.

PERSONAL PORTAL

As mentioned above, a personal account is required for reserve a tennis court. This personal portal page is designed to track personal reservation history, remember some personalized settings, make the recurring reservation actions more smooth, and serve as an anchor to the social feature "Friend-Zone" where users can interact with other users in the same city. The left panel is designed to show a customized avatar headshot with a "fun fact" about their tennis journey.

USER TESTING INSIGHTS

Three potential users of this new portal were identified and interviewed for insights on the low fidelity wireframe as shown above. The feedback are categorized into design-related and features-related, summarized as below:

Design-Related

- "Love the green color!"
- Round corner motif may be repetitive and some are not aligning
- Too many bold text on some pages
- Overall there could be more margins / blank space
- Drop-down arrow for filters

Feature-Related

- Need to consider how to add friends in friendzone and how to directly message people
- A potentially fun "ranking" in friend zone / personal portal

This wireframe shows the "Reservation History" page. It includes a date selector (Nov 16, Sat) and a location dropdown (Philadelphia). A map of Philadelphia shows numbered court locations. A "Log In" button is visible in the top right.

RESERVATION HISTORY

By clicking "more past history", users can see all past reservation records for their reference. Though not incorporated here, the past history may be utilized for making new reservation with the same set up (e.g. recurring every Sunday at 7pm at this specific location).

FINAL DESIGN (HIGH FIDELITY)

FLOW FOR COURT RESERVATION

1 - COURT FINDER

This high-fidelity wireframe shows the "Court Finder" step. It includes a date selector (Nov 16, Sat) and a location dropdown (Philadelphia). A map of Philadelphia shows numbered court locations. A "Log In" button is visible in the top right.

Dates not available are shown in gray color. Users can choose to browse through selecting a date or location.

FLOW FOR PORTAL ACCESS & SOCIAL

LOG-IN / SIGN-UP

This high-fidelity wireframe shows the "Log In" and "Sign Up" pages. Both pages require "NAME", "PHONE", "EMAIL", and "PASSWORD". There are also "OR Request Verification Code" and "Log In" buttons. A "First-time User? Welcome!" message is displayed on the right.

All users are required to have an account and log in to be able to reserve a court. If they don't have an existing one, they may sign up or use Google / Instagram to log in.

NEXT STEPS

As mentioned in the background section, this design is proposed as an inspirational framework for clubs and city parks and open space departments (who usually manages all public courts in a city) to adopt and enhance their reservation platform's user interaction and user experience. Hence, despite called "final design", there are many potential next steps to go into, depending on specific use cases. Some potential next step directions may include:

- Customize visualization to match the branding
- Simplification of the search and filter process if only for one club (meaning way less locations and options comparing to citywide search for public tennis courts)
- Depending on the scope and scale of users, the owner of this platform may choose to disable certain social features or verify one's identity to avoid potential cyber harassment.
- Depending on the data management capacity of the owners, they may incorporate smarter measures, including remembering user's reservation history and their GPS information, and suggesting potential location and date with the help of algorithm.