

A4: Design Requirements, Experience Map, & UX Design Strategy

Group Name: Sport Lover

Group Number: C 12

Group Member: WANG, Chen; PENG, Yuanhan; ZHANG, Wenxin;
TANG, Jiaguan; WANG, Dongliang; WAN, Jiachen

1. Design Requirements

1) Problem:

Most of the Badminton players, regardless of their proficiency, in the GTA area consider the processes of searching and booking badminton courts inefficient and inconvenient. Moreover, some badminton players have problems finding more wish to connect with more people that share the same interest in badminton and find partners to play together.

2) Design principles:

- Simple: Easy to use for badminton players and badminton court owner
- Efficient: Simplify the process of searching and booking badminton courts to increase efficiency
- Empathy: be conscious of the badminton players by integrating their needs into the design
- Community: Platform for badminton fans to connect and interact with others
- Reliable: Provide real-time badminton court information and their timetable

3) Environmental requirements:

This system targets badminton players, which include people of any age with any career. They should be able to easily access the platform anytime and anywhere through their phones.

4) Functional requirements:

This design must have the following functional requirements:

- The users should be able to search and filter court information and timetable.
- The users should be able to book courts through our platform
- The users should be able to find and connect with other players
- Build an online community where users could post their daily badminton experience.

5) Technical requirements:

This design must have the following technical requirements:

- Be able to show badminton courts timetable information in real-time. Synchronize with other badminton booking systems. Users are able to book a court through our system.
- Providing an online payment system, users are able to process payments through our platform.
- The APP must be easily accessible on both Android and iOS systems.
- Internet connectivity and phones (devices) are needed

6) Usability Requirement:

Our service will primarily be navigating interactions between badminton lovers and badminton courts providers. Our target badminton players involve all kinds of age and professionals. Also, our searching system, booking system and user interface are designed to be user-friendly and easy navigate for all types of users.

2. Experience Map

Stages	Entice	Enter	Engage	Exit	Extend
People	Badminton player	Badminton player	Badminton player	Badminton player	Badminton player
Context	Home School Stadium	Home School Stadium	Home School Stadium	Home School Stadium	Home School Stadium
Actions	Download the app Register for Account Login	Browse the app's functions Compare with court's website and find improvements Considering using the app or not	Select a time, a court, and pay to book. Browse the suggestion if confused.	Review the booking and send the clarification. Cancel or Change the order	Comments on the courts, with rating. Bug report Recommend this website to friends and family
Thinking	Why should I use this app? Is this website trustworthy? Using this app to book a court will help me save time.	Where is the timetable and the booking function? This interface is really clear.	Is the price reasonable? Is it safe to enter my card information? Any suggestions? Confused which court to choose.	Any improvement compared to usual booking? Is this app time-saving? Does the court receive my order?	Is the app efficient? Any discount?
Feeling	Curious Motivated Uninterested Confused	Motivated Efficient Useless Hesitant	Hesitant Discouraged Excited	Excited Looking forward to Hesitant	Satisfied Happy Unsatisfied
Touchpoints	Phone, Computer	Phone, Computer	Phone, Computer, Court images	Phone, Computer	Phone, Computer

Takeaways:

Bright spots: Users are at their best when they are curious and motivated to use the app, feeling efficient and helpful when using the app, and they later feel that booking using the app is valuable and worthwhile. The biggest problem of the users is that they cannot see the courts' timetable. So cooperating with the courts' managers and offering our users a list of available courts, and providing an online booking system will be a chance for our app to attract more users. It's also helpful if we give suggestions to our users after considering factors that users want, like distance, price, time, etc.

Issues and breakdowns: Problems occur when the users do not trust our app, when they cannot find helpful information from a cluttered app interface design, and when they do not find it efficient to book or check on our app. This means that we need to make our app interface clear and functions easy to find. Also, we need to obtain the authorization of the court owners and thus convince our users to trust our app. Further, we can offer discounts to users who book from our website to attract more users.

3. UX Design Strategy

1) Problem

Booking the badminton court is inefficient since there is no unified way to book different badminton courts. The badminton court allocation is limited during peak times. Some low-income players cannot afford badminton court rental fees.

2) Personas

P1: Mark—22 years old undergraduate from the University of Toronto, majoring in computer science. He is a badminton lover and has some experience booking badminton courts outside of school. He usually books badminton courts with his friends. He has a girlfriend who enjoys playing badminton, and his girlfriend usually plays badminton with him twice a week or more.

P2: Iris—21 years old undergraduate from the University of Toronto, Mississauga. She is frustrated when she cannot do what she wants efficiently. She likes to play badminton with her friends but has no experience booking the badminton court outside of campus.

3) Scenarios

Scenario 1: Mark wanted to play badminton with his friends on Friday evening. He called the court three days before, but the staff told him that the court was fully booked on Friday evening. Thus, he had to call the availability of other badminton courts. Finally, after he checked with three badminton courts, he found an available badminton court and e-transferred to the court manager to hold the badminton court.

Scenario 2: Iris and her friends checked the Google Map to find the nearest badminton court. When she arrived at the court, the staff told her that there were no more available courts for her. Thus, she had to book the courts some other time.

4) Outcomes

Users will select badminton courts conveniently and efficiently by logging in to the platform to check the timetables of different badminton courts and adjusting the filter to find the appropriate badminton courts for them. Users can leave comments and make friends through the community as well. Once the user finds a suitable time slot, they can pay directly to the platform to hold the badminton court. The user will not worry about calling the different badminton courts to check their availability.

5) Differentiators

- i. The platform provides available timetables of different badminton courts for users to check.
- ii. Users can pay by platform directly.
- iii. Users can make friends through the community.
- iv. The platform provides a price and distance filter for different requirements of users.
- v. Users can leave reviews on the platform

6) Measures of Success:

- i. An increase in the number of virtual visits
- ii. A sustained increase in transactions between users and the platform
- iii. Increase of user activation
- iv. The less time the user will spend on booking badminton courts

4. Plans for Individual Low-Fi Prototypes & Usability Testing

Key Tasks	Description	Assigned Members
Recommendation / Filter search	A search bar for users to search for their desired badminton court; Users can add filters to do detailed search; Courts recommendation based on user's location and budget;	Chen Wang; Jiachen Wan

Real time courts timetable check	Providing users with real time, available timetables of different badminton courts.	Dongliang Wang; Yuanhan Peng; Jiaguan Tang
Booking and payment system	Sign up/Register, personal user page, shopping cart, order review and confirm, payment authorization and confirm.	Jiachen Wan; Dongliang Wang; Wenxin Zhang
Comment and review	Rating and comment system for users who have booked and went to the badminton courts. Every user can review others' comments for a specific court.	Yuanhan Peng; Wenxin Zhang
Online community	Online community for badminton players to connect and interact with each other; Platform for users to create posts to share events and feedback.	Chen Wang; J iaguan Tang

Appendix 1: Assignment Attribution Detail

	Idea	Execution
Design Requirements	Wenxin Zhang; Dongliang Wang; Yuanhan Peng; Jiaguan Tang; Chen Wang; Jiachen Wan;	Yuanhan Peng; Wenxin Zhang
Experience Map	Wenxin Zhang; Dongliang Wang; Yuanhan Peng; Jiaguan Tang; Chen Wang; Jiachen Wan;	Jiaguan Tang; Chen Wang
UX Design Strategy	Wenxin Zhang; Dongliang Wang; Yuanhan Peng; Jiaguan Tang; Chen Wang; Jiachen Wan;	Dongliang Wang; Jiachen Wan
Plan For the Low-Fidelity Prototypes	Wenxin Zhang; Dongliang Wang; Yuanhan Peng; Jiaguan Tang; Chen Wang; Jiachen Wan;	Wenxin Zhang; Dongliang Wang; Yuanhan Peng; Jiaguan Tang; Chen Wang; Jiachen Wan;