

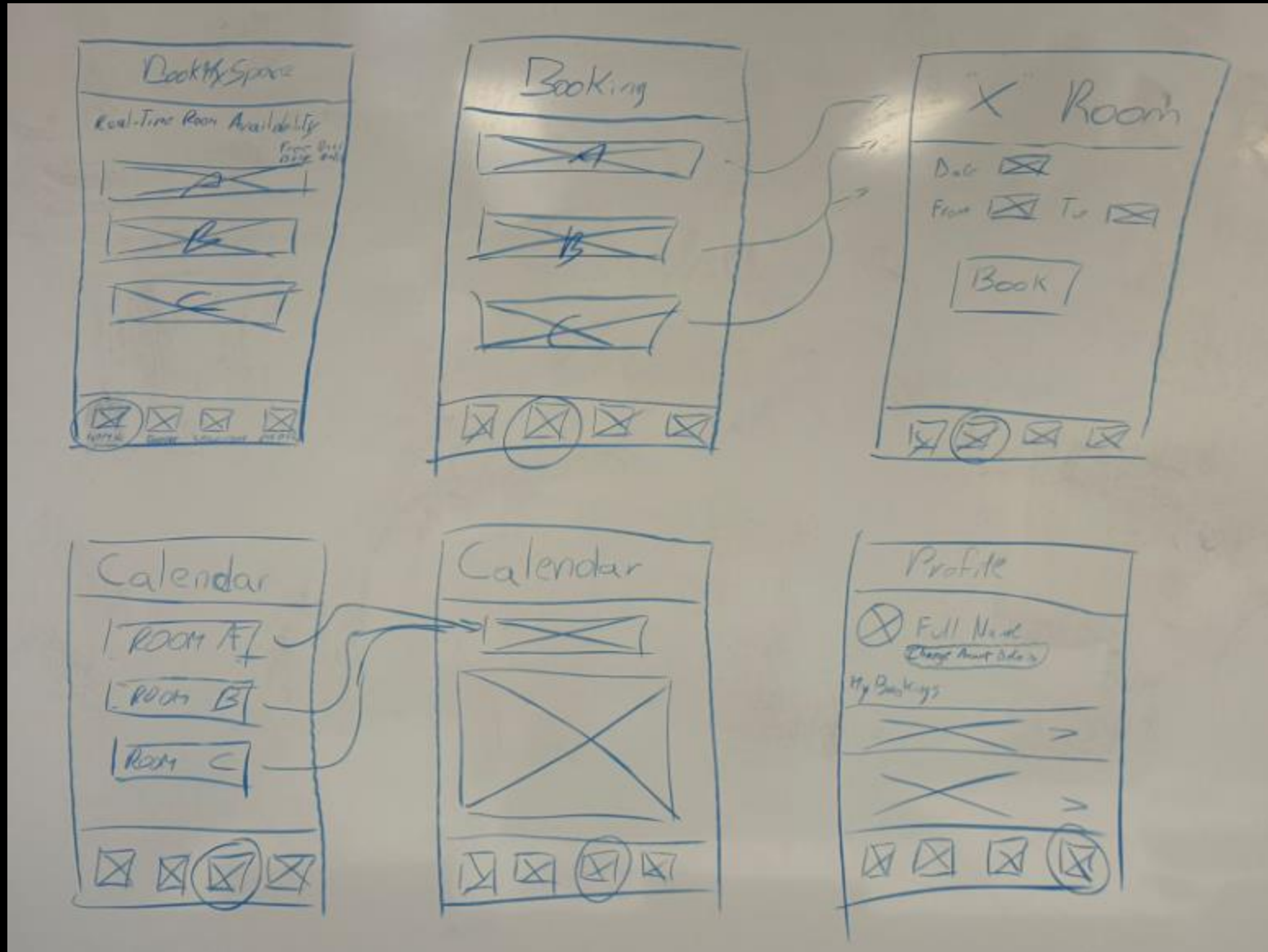
HUMAN-COMPUTER INTERACTION

ACTIVITY 3

OVERVIEW OF ACTIVITY 3

- 3 good design alternatives
- 1 intentionally bad design
- Final choice after iteration
- Storyboard

GOOD DESIGN 1



JUSTIFICATION FOR DESIGN 1

- In the footer, “Home”, “Booking”, “Calendar”, and “Profile” are present as the most important features of the app for the user.
- Home screen: Put Real-Time availability as first thing so that user can see which rooms they can use in that exact moment. The room-cards say that the room is “Free/Busy Until ...”
- Booking screen: Can select the room that user wants to book and later can insert date of the starting booking time (end time may differ as time range may include midnight and later times) and time range; if room is already busy at that time, the app return starting time from which room is busy during that interval and time when the room is free again.
- Calendar screen: Can select the room to see when it is busy during that day, date is coloured with green, yellow, or red depending if the room is completely free, partially free, or completely busy.
- Profile screen: Can see profile picture, full name, setting to change account details and user’s current bookings.

FORMATIVE EVALUATION FOR DESIGN 1

The following evaluation of the design through team members' feedback:

- Strengths:

The “Real-Time Availability” feature in the Home screen with the “Free Until” / “Busy Until” received positive reactions from peers as well as the possibility of selecting the single room card, putting the booking details (i.e. date, time) and booking it in the Booking screen.

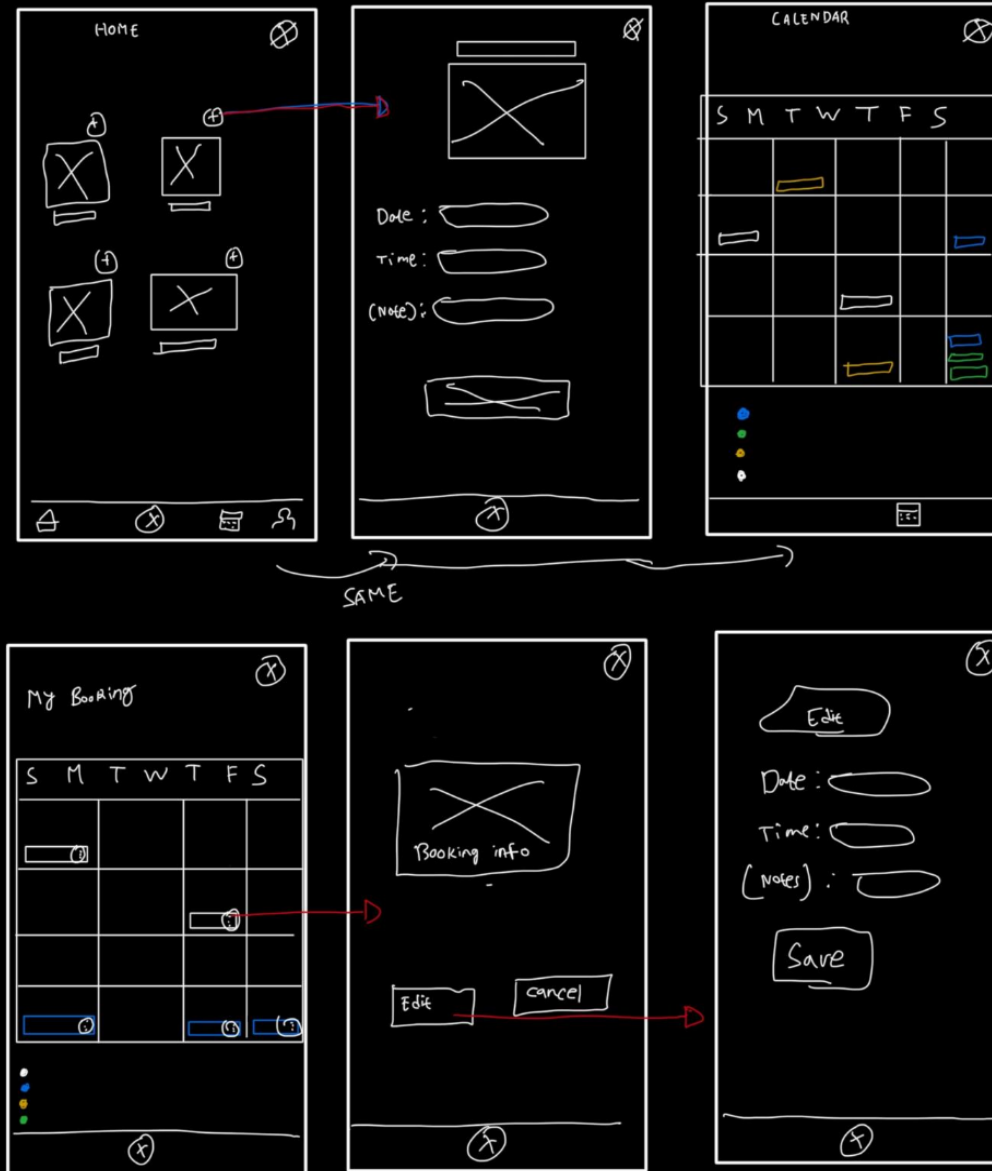
The Profile screen interface got great response, too, with the features of profile picture, name, and users' upcoming bookings.

- Suggested Improvements:

Instead of having room cards as first thing in the Calendar screen, it was suggested to put the calendar first and then show when rooms are booked by selecting the date.

Also, it was suggested to give the user the possibility to insert a note when booking the room.

GOOD DESIGN 2



JUSTIFICATION FOR DESIGN 2

My design alternative focuses on the core booking workflow by including only the essential screens (Home, Booking, Calendar, and My Booking) because these directly support the main user tasks identified in our research, such as checking availability, making a booking, and managing existing reservations. I intentionally excluded secondary features like authentication or profile settings to keep the scope centred on the functions users rely on most. The prototype is presented in a low-fidelity, sketch-based format to allow rapid iteration and to keep user attention on flow and task structure rather than visual styling.

Within this design, I chose features that would reduce confusion and make availability clearer, such as a colour-coded calendar with a legend so users can immediately distinguish which room is booked without opening each entry. Navigation is kept simple through separate tabs for Home, Calendar, and My Bookings, and the booking and editing flows are intentionally linear to minimise cognitive load. Overall, the chosen scope, low resolution, and design decisions work together to support early evaluation, quick refinement, and a clear representation of the most important user interactions in the system.

FORMATIVE EVALUATION FOR DESIGN 2

A formal evaluation was conducted through peer feedback, which highlighted several key strengths and areas for development within the low-fidelity prototype. The feedback provided early insight into how the system may be interpreted and used, allowing us to refine the design before usability testing begins.

- **Strengths:**

Peer feedback identified strengths such as the colour-coded legend for distinguishing room types, the clear footer navigation, and the inclusion of editing/cancellation options and an optional notes field.

These elements were viewed as features that may support user understanding, improve navigation, and enhance flexibility. Therefore, these components will be retained and refined in the next iteration to ensure they continue to support clarity and ease of use.

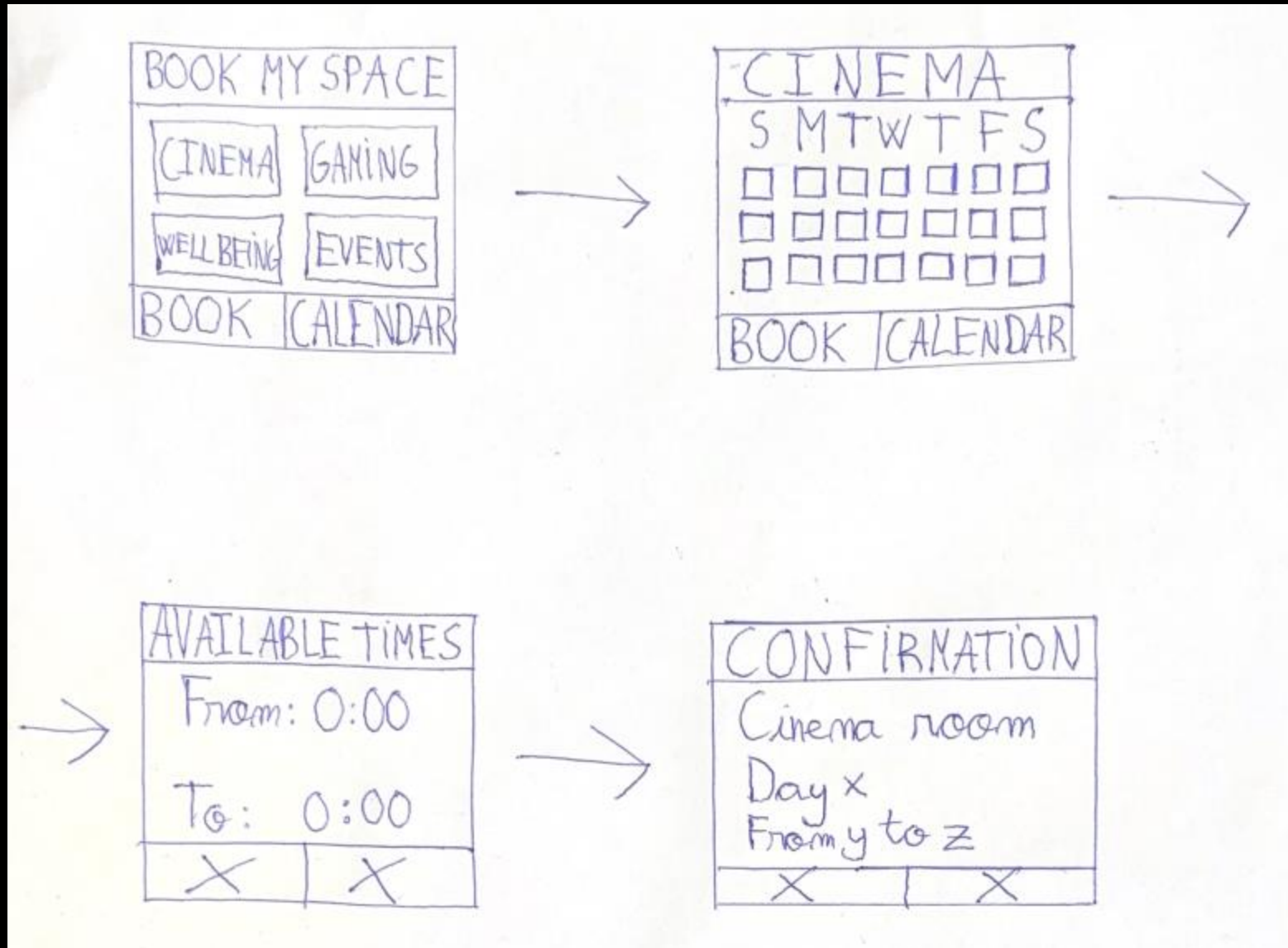
- **Suggested improvements:**

Several improvements were also recommended, including replacing the calendar view in “My Bookings” with a simple list, displaying booking availability only when a date is selected instead of relying on a colour legend, and adding a missing profile section for account details.

Additional suggestions involved using icons instead of text labels, separating start and end time fields, and improving the clarity of the booking button on the home screen.

These proposed changes will guide the redesign by making interactions more intuitive, reducing unnecessary visual clutter, and aligning the interface more closely with user expectations.

GOOD DESIGN 3



JUSTIFICATION FOR DESIGN 3

This design alternative focuses on creating a clear and linear booking workflow by presenting only the essential steps in the process: selecting a space, choosing a date, selecting available times, and confirming the booking. This scope was intentionally kept minimal to reflect the core user tasks identified in our research, such as navigating room categories, checking availability, and completing a booking with minimal confusion.

Each screen represents one action at a time, reducing cognitive load and preventing users from feeling overwhelmed. The initial screen groups all space types clearly (Cinema, Gaming, Wellbeing, Events), followed by a simple calendar layout that guides users naturally toward selecting a booking date.

Separating the time selection screen allows users to focus on choosing “From” and “To” times without unnecessary clutter, and the final confirmation screen provides a clear summary to prevent mistakes before the booking is completed.

FORMATIVE EVALUATION FOR DESIGN 3

A formative evaluation of the prototype was carried out through peer feedback, it was through it that we developed the following:

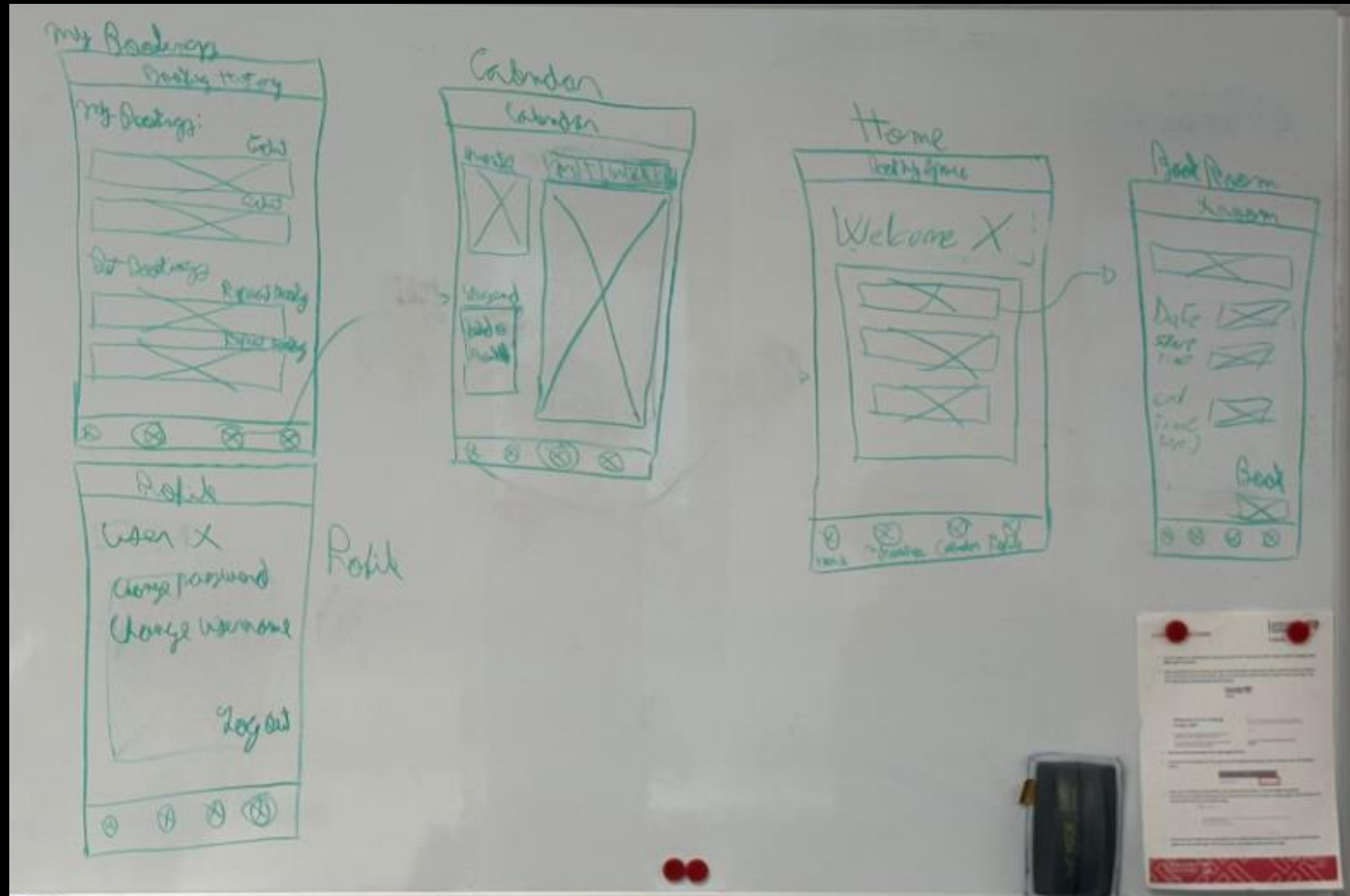
- Strengths

Peers highlighted the simplicity of the step-by-step structure, noting that showing only one action per screen made the booking process easy to follow and reduced cognitive load. The clear separation of “From” and “To” time fields was also well received, as it prevented confusion around booking duration. Additionally, the confirmation screen was viewed as helpful for preventing mistakes before completing the reservation. These strengths will be transferred to the final design

- Suggested improvements

Feedback suggested adding clearer visual indicators on the calendar screen such as colour cues or symbols to help users understand availability at a glance. Some peers also noted that category labels (e.g., Cinema, Gaming, Wellbeing) could be complemented with icons to improve recognition and speed up scanning. It was also recommended to provide a way to return to previous steps more easily, as the prototype currently assumes a strictly forward progression.

INTENTIONALLY POOR DESIGN



JUSTIFICATION FOR THE POOR DESIGN

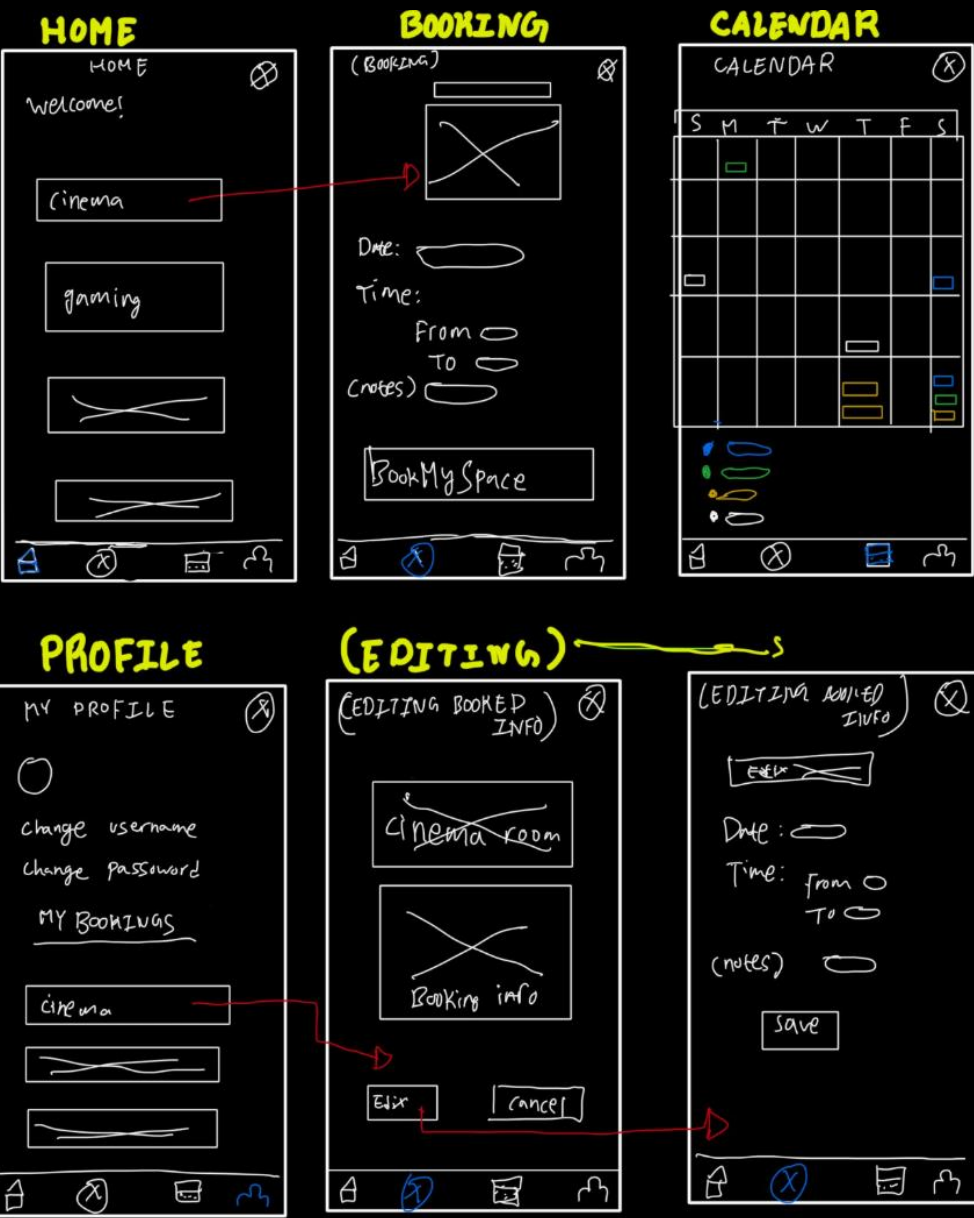
In the footer we have: Home, My Bookings, Calendar, and Profile. These are the main features that the users are going to make use of. There is also the Booking screen that is going to be accessible via the Home screen.

- Home screen: The home screen shows a text message in the header that welcomes the user. Then there is the list of rooms showing their availability, revealing if they are free, booked or free until a specific time.
- Booking screen: In the Booking screen the user can select the date on which the user wants the room to be booked, the start time of the booking and optionally the end time for the booking. Then after filling the required information the user can finally book the room.
- My Bookings screen: Here the user can see the upcoming bookings he has. The user can also edit the booking to change the start time/ end time or cancel it. In this screen there is also a history of the user's bookings where he can see the rooms he booked, the date, start time and time of check out.
- Calendar screen: The user can check in the Calendar the dates of the rooms that are booked. There is the month panel where the user can select the month. Next, we have the week calendar where the app displays the days of the week of the month selected. Afterwards there is the legend panel where it shows what the symbol in the week calendar means.
- Profile screen: In the profile screen the user can edit the username and password. The user can also log out from this account in this screen.

FORMATIVE EVALUATION FOR THE POOR DESIGN

- The booking screen needs to be in the footer. It cannot be accessed only via the Home screen since is not direct enough and can be confusing for the users.
- The My Bookings screen instead of being in the footer it can be in the profile settings and be replaced with a Booking icon for the Booking screen.
- Having a month and week calendar in the same screen can be redundant. The calendar also can display the hours of the day to show at what time the rooms are busy or available.

FINAL CHOICE AFTER FEEDBACK AND ITERATION



JUSTIFICATION FOR THE FINAL CHOICE

After evaluating our 3 good design alternatives and the intentionally poor design, we completed one iteration cycle and developed a stronger one which we chose as our final prototype. The iteration focused on combining the strengths that users consistently preferred (such as clearer “From/To” time fields from Design 1, the clean layout and calendar structure from Design 2, and the more distinctive navigation cues from Design 3) while removing weaknesses like unclear icons and scattered navigation. The scope and resolution of the final prototype remain consistent with good design 2, focusing on the core booking workflow and using simple sketches for quick refinement.

Several targeted improvements were introduced like a consistent app logo on every screen to reinforce identity, a dynamic navigation bar where the active icon appears highlighted, and a reorganised structure that moves “My Bookings” into the Profile page to avoid an empty profile and reduce tab clutter. We contemplated about another calendar view for the "My Bookings" section but decided for a simple list/card layout. This lets users to immediately see key details (time and date at a glance) which is more efficient for the typically low volume of personal bookings compared to a shared all booking calendar.

JUSTIFICATION FOR THE FINAL CHOICE

These changes reflect user feedback requesting clearer orientation and more intuitive grouping of personal information. Overall, this iteration produced a cleaner, more coherent design that preserves the strengths of earlier concepts while addressing the suggestions revealed during the formative evaluation.

STORYBOARD

THE NEED	CURRENT PROBLEM	THE PROBLEM
<p>A student in the dorm wants to use a shared room later in the evening for an activity.</p>	<p>The student sends a message in the dorm group chat asking if any room is available. When there is no response, she decides to go ahead and plan to use a room.</p>	<p>The problem is that the group chat quickly fills with unrelated messages, pushing the booking request out of view</p>
CONSEQUENCES	SOLUTION INTRODUCED	IMPROVED EXPERIENCE
<p>As a result, multiple students sometimes try to use the same room at the same time, causing confusion and frustration.</p>	<p>Tired of these problems, the students decide to use the solution BookMySpace. The app displays all rooms and their availability in a clear, centralized schedule.</p>	<p>The student selects a room and time slot. The booking is instantly confirmed and visible to everyone, preventing conflicts and improving the overall user experience.</p>