

## ACTIVITY 6

### 6.1 *Evaluate the high-fidelity interface developed in the last phase.*

The high-fidelity prototype (based on our final low-fidelity prototype) is designed by refining navigation, following visual hierarchy and improving the overall interaction flow. Many functional requirements, like viewing room availability (FR2.2), booking (FR3.1), preventing double bookings and displaying personal bookings (FR3.3) are now represented through clearer layouts, consistent icons, and fixated screens that decrease cognitive load.

The design holds to usability goals by being efficient to use (NFR4.4), easy to learn (NFR4.1), and visually consistent (NFR4.2). For example, the redesigned “My Bookings” section uses a list-card layout instead of the calendar-based idea. This means faster recognition over recall and instant access to details without additional taps (a choice aligned with **Nielsen’s “visibility of system status”** and **Norman’s principle of reducing user memory burden.**) The navigation bar (footer) has consistent icon positions, supporting muscle memory and perceptual grouping through alignment and proximity.

From a design-theory viewpoint, the prototype follows crucial principles of human perception (a coherent top-to-bottom reading order, clear grouping of connected components that improves scannability). Having familiar metaphors (profile icon, calendar icon, etc.) follows the interface standard, which increases memorability.

An improvement could be the information density on the booking form and calendar screens (multiple inputs are in one continuous column). Slightly dividing or visual grouping could ease the flow for scanning. However, this issue is uncritical and does not obstruct core usability principles. Therefore, the high-fidelity prototype still is clear, intuitive, and well-aligned with modern mobile UI standards.

*6.2 Apply at least one of the evaluation methods that you learnt. And justify why particular evaluation methods are most suitable in the context of your project.*

The Heuristic system is perfect in the context of this project since users or testers do not require the actual system to be functioning in order to see where the design falls short. This also facilitates the finding of mistakes, by making them more readily apparent and allows few people to detect them all.

Heuristic mistakes are amongst the most common in a project such as our own, where our booking system involves tasks that are supposed to be done in a certain order and tasks that can fail or cause an error easily.

*6.3 Report the goals of the evaluation, participants, apparatus, procedure, results (with adequate tables and graphs), results discussion and your reflection on usability results.*

### Goals of the Evaluation

The goal of the heuristic evaluation was to find usability concerns in the **BookMySpace** high-fidelity prototype through Nielsen's 10 Usability Heuristics. It intended to emphasize design drawbacks and evaluate their severity.

### Participants

It was done by 6 expert evaluators (all team members familiar with HCI principles and the project's design goals). Each evaluator individually evaluated the prototype, recognized heuristic violations, and later discussed on severity ratings.

### Apparatus

As mentioned, before we used our high-fidelity digital prototype of the BookMySpace app, created in Figma and the shared heuristic-evaluation notes sheet used to record violations and severity ratings. No other extra software was used also each evaluator access to the prototype on their own laptop which enabled free and interactive flow for the testing.

### Procedure

We followed a two-step heuristic inspection. First, each evaluator independently explored the prototype to understand its overall flow, available actions, and interface behaviour. Then, evaluators conducted a second pass, this time systematically checking each screen against Nielsen's 10 Heuristics and recording any violations. After the individual reviews were completed, the team held a brief discussion session to consolidate findings and agree on final severity ratings for each issue.

### Results

The results of the heuristic evaluation are summarized in the completed violation table, showing each heuristic, whether it was violated, how it was violated, and the agreed severity rating. These results represent the combined judgments of all evaluators after discussion and comparison of findings.

## Heuristic Evaluation

### Notes sheet (1)

Heuristic	Is the heuristic violated? How?	Severity
<b>1. Visibility of system status</b> The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.	In the homepage when we select a certain room it just does not change any colour or shape to indicate that it has been selected which is why we assume that it has been violated.	2
<b>2. Match between system and the real world</b> The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.	No violations.	
<b>3. User control and freedom</b> Users often choose system functions by mistake and will need a clearly marked 'emergency exit' to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.	There is no option, to go back when we are booking. The design only includes the book my space button and there is no option to go back to change the chosen room or anything so we would need to fix this.	3
<b>4. Consistency and standards</b> Users should not have to wonder whether different words, situations or actions mean the same thing. Follow platform conventions.	No violations.	
<b>5. Error prevention</b> Even better than good error messages is a careful design which prevents a problem from occurring in the first place.	If doubled clicked on a room on the homepage by accident or intentionally it just automatically books the room without stopping at the page to select time and other details it just automatically gives the "congratulations, you booked the room message"	2

Heuristic	Is the heuristic violated? How?	Severity
<b>6. Recognition rather than recall</b> Make objects, actions and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.	No violations.	
<b>7. Flexibility and efficiency of use</b> Accelerators – unseen by the novice user – may often speed up the interaction for the expert user, such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.	We do not have any specific alterations for common users or people who books certain rooms commonly. It's the same for all users which we can change by maybe adding <u>the most commonly booked</u> for each type of user based on their data for the first three months (this is just a solution idea).	1
<b>8. Aesthetic and minimalist design</b> Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.	No violations.	
<b>9. Help users recognise, diagnose and recover from errors</b> Error messages should be expressed in plain language (no codes), precisely indicate the problem and constructively suggest a solution.	We don't have any error messages in our high-Fidelity prototype therefore we obviously also do not have a way to help users recognize or recover from errors because we have what have not designed for or planned the possibility of errors.	3
<b>10. Help and documentation</b> Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out and not be too large.	Our app is the simplest one therefore realistically it would not require any help or documentation however since we do not have it, has been violated. We could add it with like a question symbol linked to the help and documentation section but since it's highly unlikely that it would be necessary the severity is one.	1

## Discussion of Results

Generally, the prototype exhibited good usability, with majority of heuristics showing no major violations. The main concerns identified were the **lack of error feedback** (Heuristic 9) and the **absence of a back or undo option** during the booking process (Heuristic 3). The missing back-navigation is fairly easy to fix through UI adjustments, while the error-handling concern needs more thoughtful design work (anticipating potential user mistakes, defining system responses, and creating clear, helpful error messages). The remaining concerns were minor and can be corrected with

small design refinements, confirming that the prototype is mostly strong and well-structured.