001_PORT: Individual UI/UX Portfolio

Oliver Johnson

Contents

Part 1 – Cognitive Walkthrough of existing UI/UX case studies

Statement of user goals and case studies

Personally, I believe that throughout the user interface design process, emphasis on establishing a clear and concise design is essential to grow the usage of the site as well as benefit the user experience. This part of the report will first detail two case studies and two separate use cases for each of them; this will be done in the form of cognitive walkthroughs. All demonstrations and images throughout the cognitive walkthroughs will be done within an incognito tab to simulate the average user experience.

The below user goals regarding the case studies were chosen as I believe they're the most common use cases when a user utilizes these user interfaces and so should be the most streamlined and detailed.

Cognitive walkthrough of case study 1 – amazon.com

Goal identification

The end user goal is to add a specific product to the cart on Amazon.

User goal process

Accessing the homepage

The user will first begin by opening their web browser and types in the domain name "amazon.com" or clicks on a previously established bookmark. The website should load and will present the homepage.

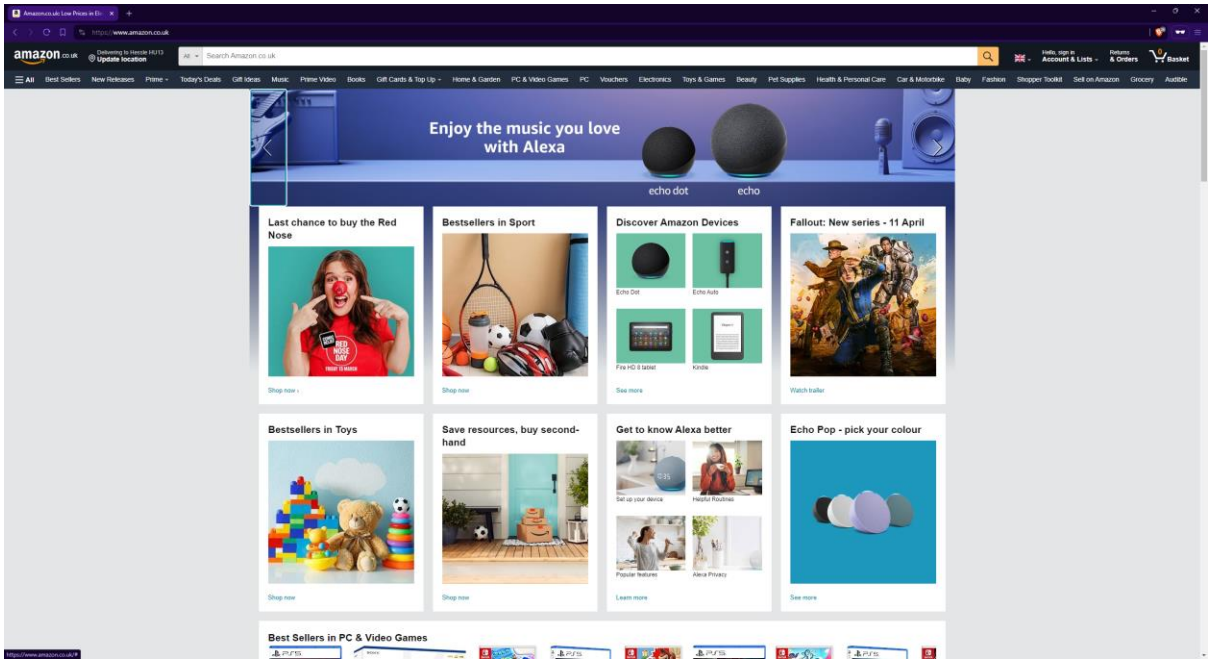


Figure 1 - The loaded amazon homepage.

Locating the desired product

The user would then utilise the search bar at the top of the page to type in the name or description of the product they want to order, if the product isn't already present on the homepage.

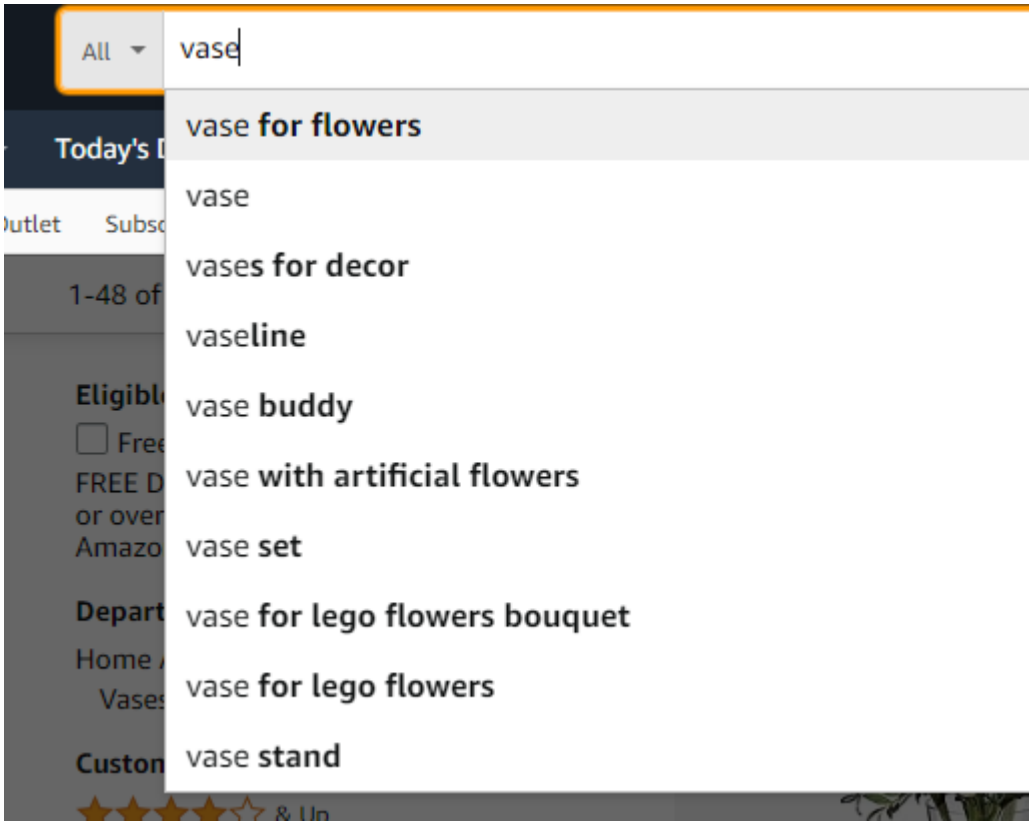


Figure 2 - Using the search bar to locate a product.

From this point the user is displayed with options relevant to their search in which the user can select a product corresponding to their requirements. Up to this point I personally believe that overall, the user experience has been very streamlined and efficient. It easily allows the average user and those who don't typically use technology to easily get in and browse for specific items.

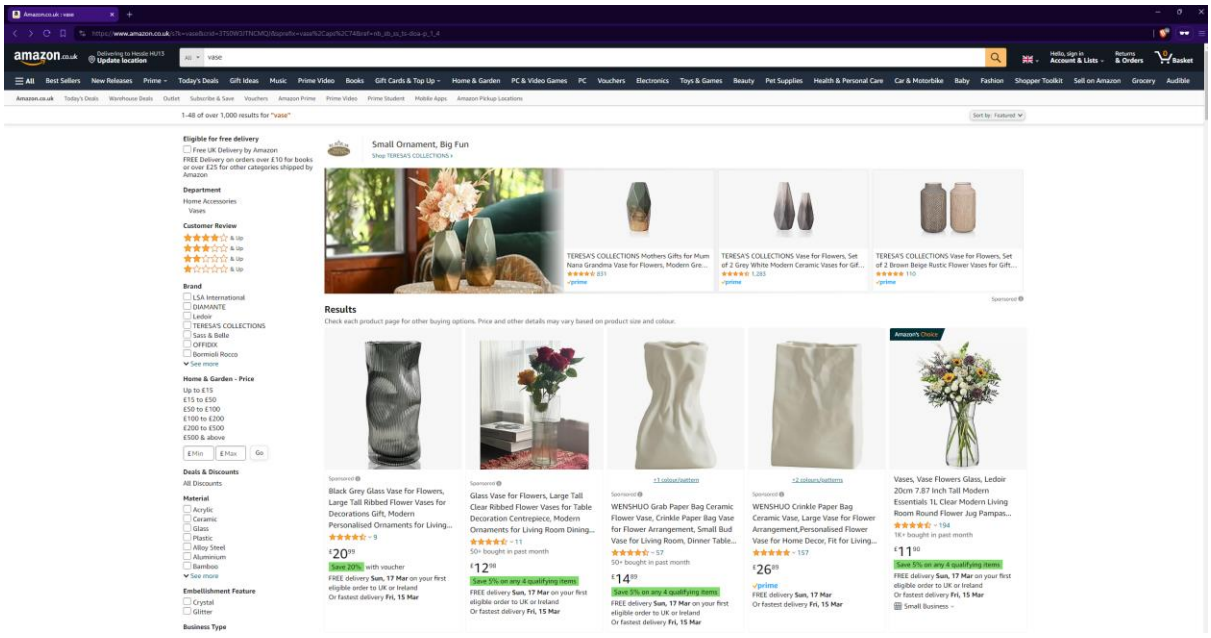


Figure 3 - View of the relevant searched term.

Product page evaluation

The user is then directed to a page displaying relevant search term items. I personally believe with this page that it could be simplified as for someone who doesn't particularly use technology that often, this may be extremely overwhelming.

When the user has successfully decided on one of the searched for items, they can head into the product information page.

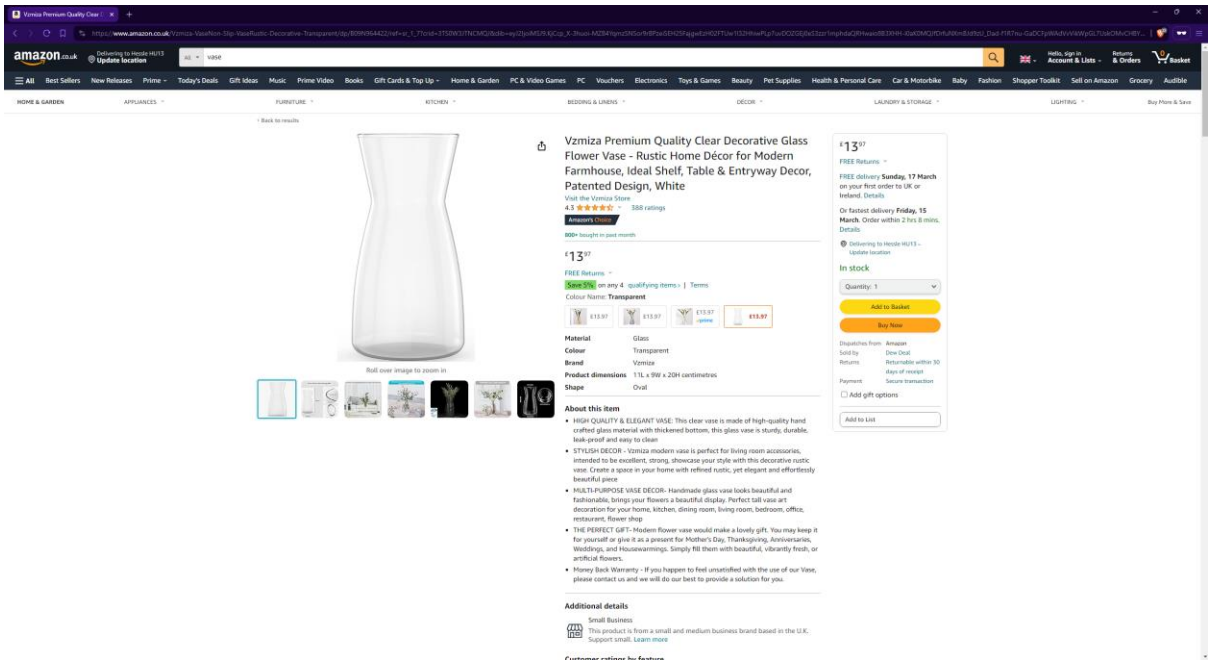


Figure 4 - Product information page.

Adding to cart

From here the user can simply select one of the highlighted options depending on their requirements; whether it's to add the product to the cart or simply purchase it directly. One positive of this page is the fact that both major options are highlighted using bright recognisable colours; significantly enhancing their ability to be seen. A downside to this page could be the excessive amount of information being presented. A user who doesn't typically utilise amazon for purchases may see this page and become overwhelmed.

User Interaction Reflection

How difficult is the process overall?

I personally believe that Amazon did a good job of highlighting key areas of adding a product to the cart, especially when it comes to the use of certain colours to enforce subliminal directions to the user. The interface serves someone who is experienced with technology much better than someone who isn't however as certain aspects such as the visibility of the system status (loading indicators and status indicators) are not present.

Positives regarding user interaction

Overall, I believe that the design is minimalistic and consistent. It provides a smooth navigation experience for the user and after several uses becomes extremely recognizable and easily becomes a part of the user's mental model. The design also reflects the user's real-world concepts by adapting based on their language and conventions.

Negatives regarding user interaction

Throughout the user experience, I believe in some cases the design contains a lot of unnecessary information on screen which overall affects the aesthetic. Some key buttons are highlighted however not all which does affect the flexibility and efficiency of use. Finally, the lack of any error prevention or visibility of system status such as feedback or loading indicators could confuse certain individuals who aren't familiar with the design.

Cognitive Walkthrough of case study 2- easyjet.com

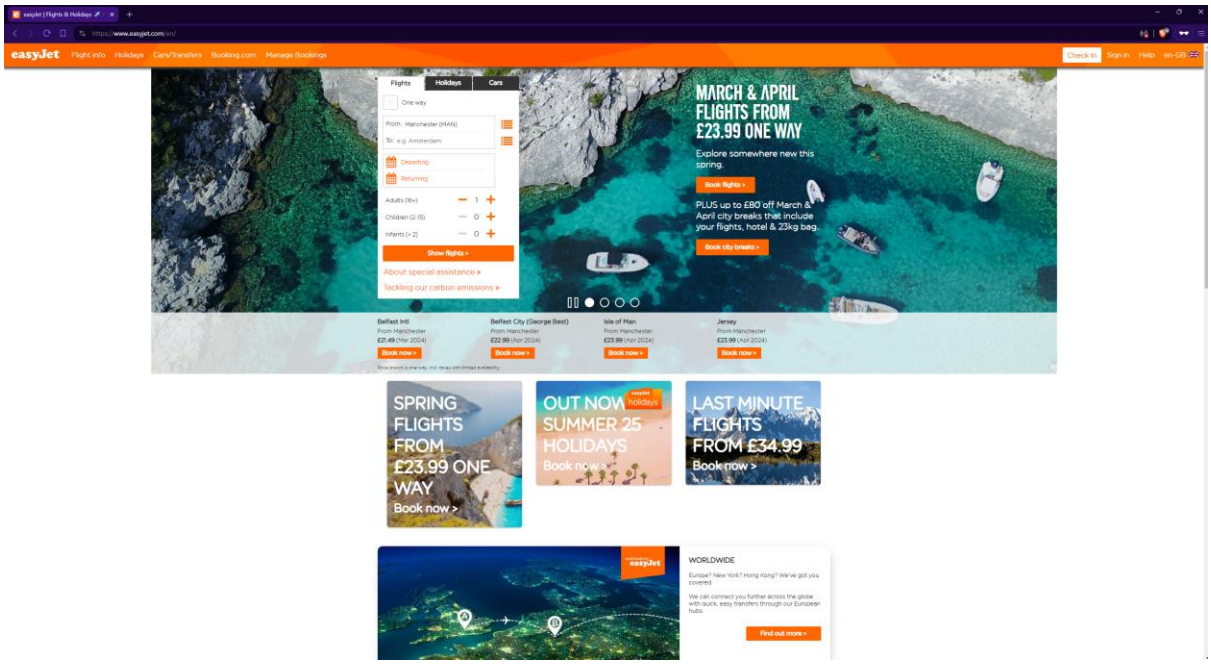
Goal Identification

The end user goal of this case study is to document the process of booking a flight and evaluate the efficiency of the user interface.

User goal process

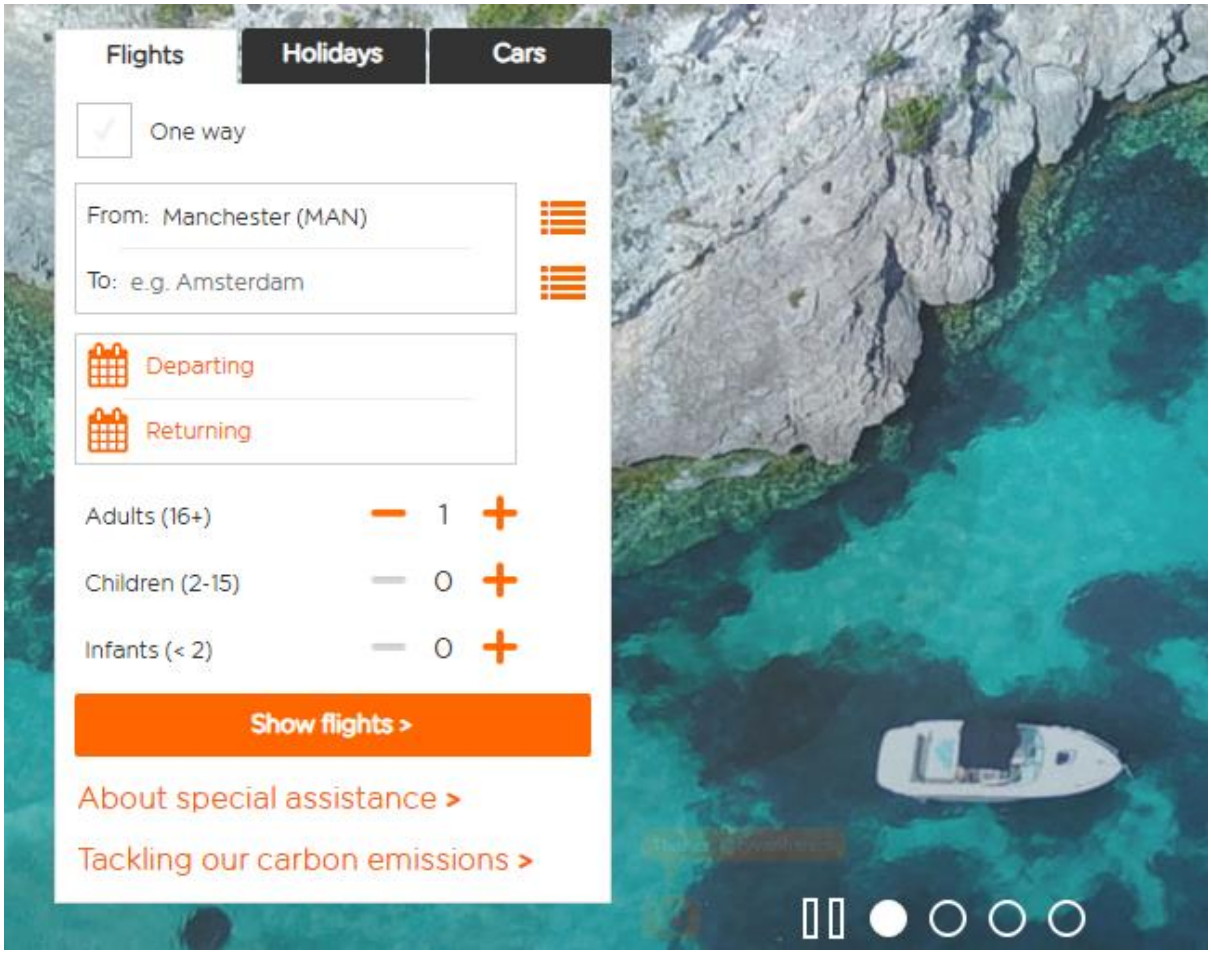
Accessing eayjet.com homepage

The user will first start by opening their web browser and navigating to EasyJet's website (easyjet.com) in which the homepage should load and display various options including flights, hotels, and car hire.

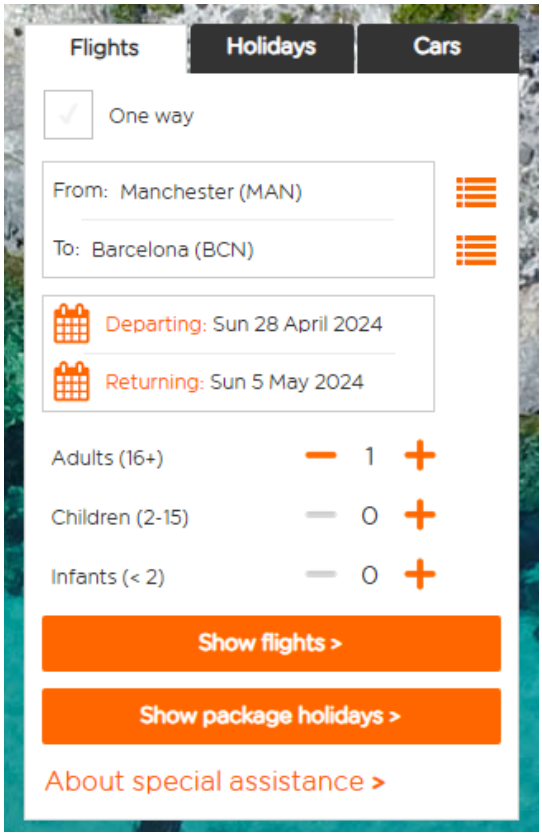


Beginning flight booking

The user will then navigate to the centre of the banner and select the 'Flights' tab to enter their departure city, destination, travel dates and number of passengers in the appropriate forms.

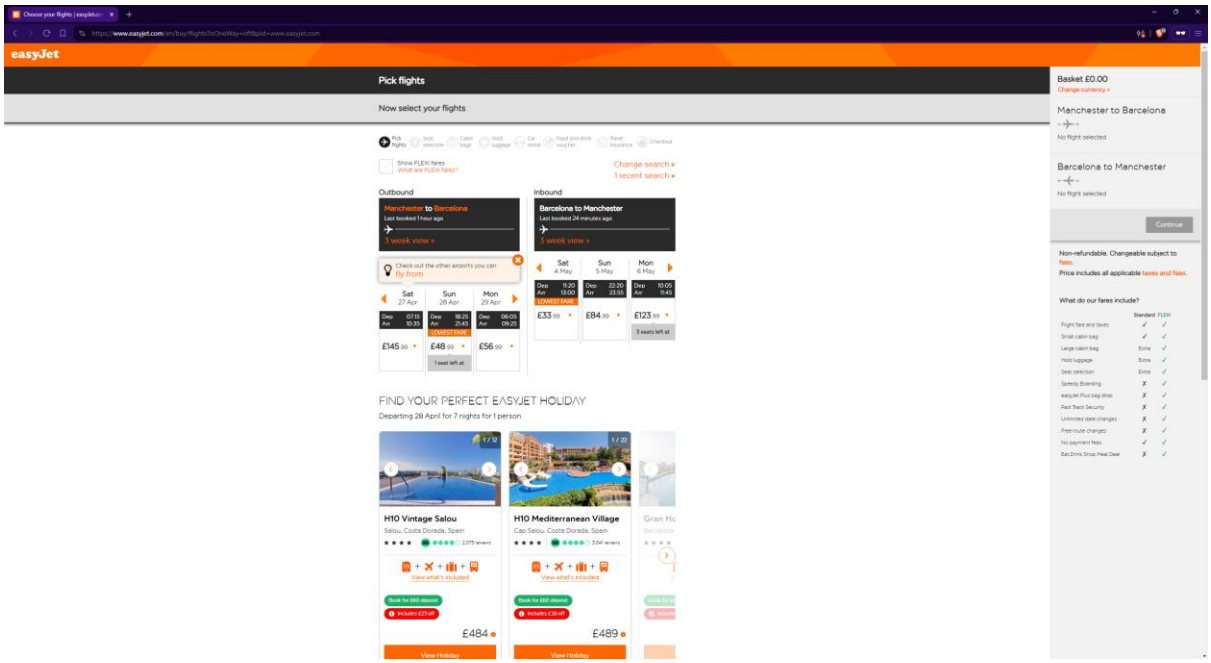


(In this case I've entered the following details to retrieve a list of available flights)

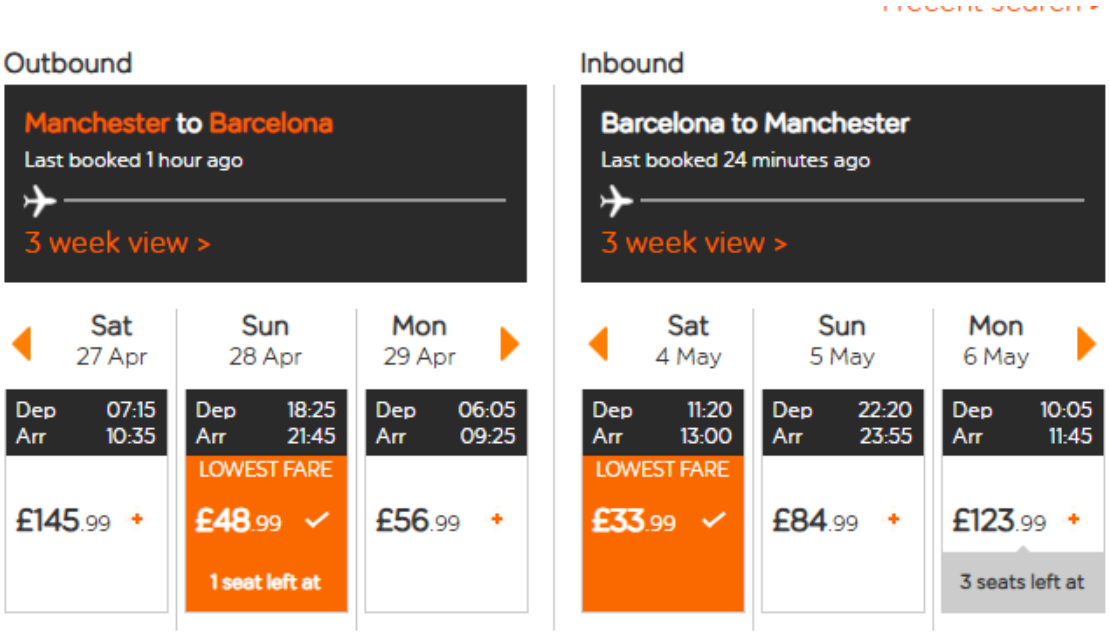


Viewing appropriate flight options

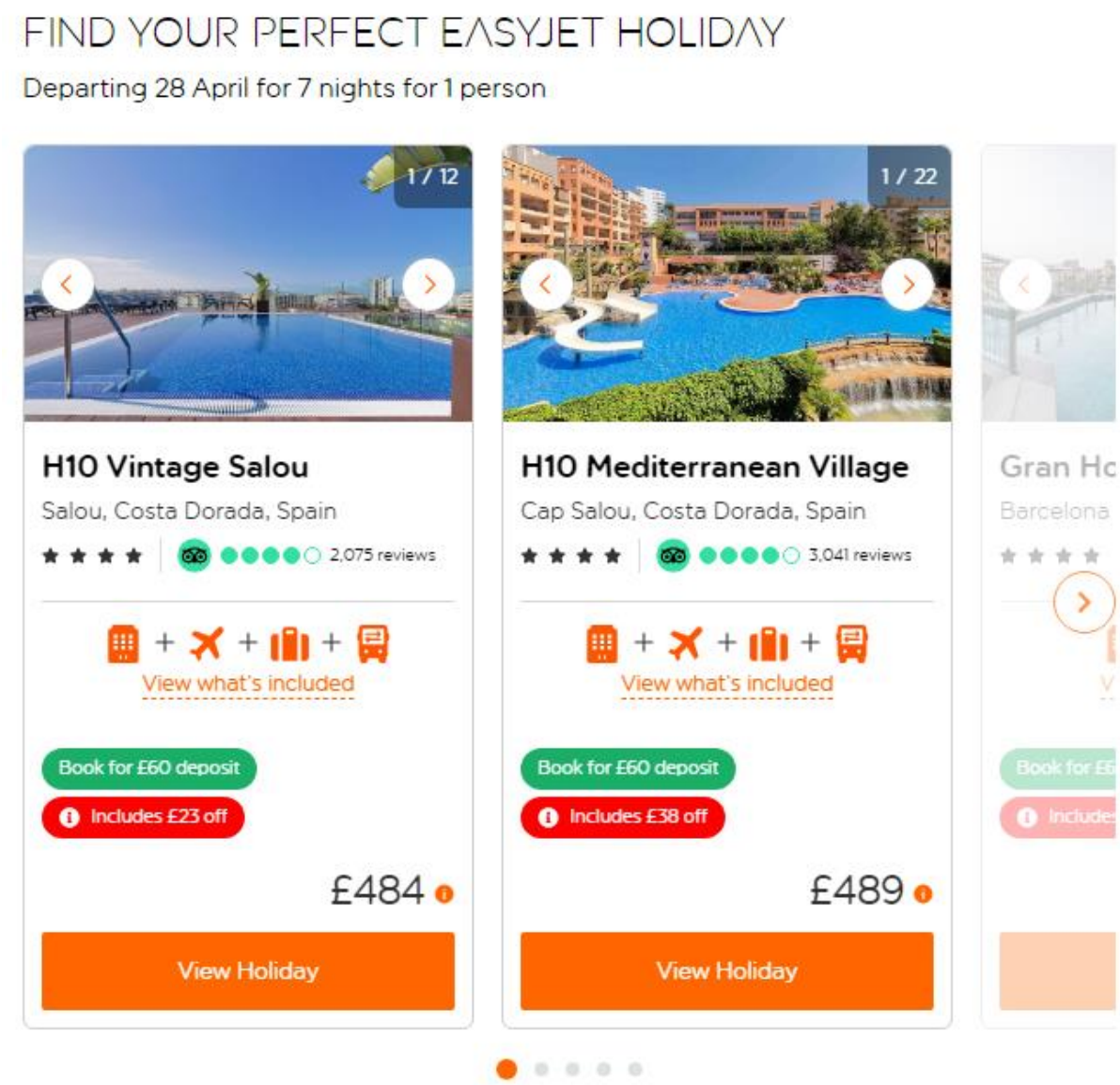
The user will then be presented with a list of available flights based on the entered criteria. These available flights can be filtered accordingly and populate the list based on price, departure time, duration and other factors.



The user is primarily prompted to select their outbound and inbound flight options here, changing price depending on date and departure times.

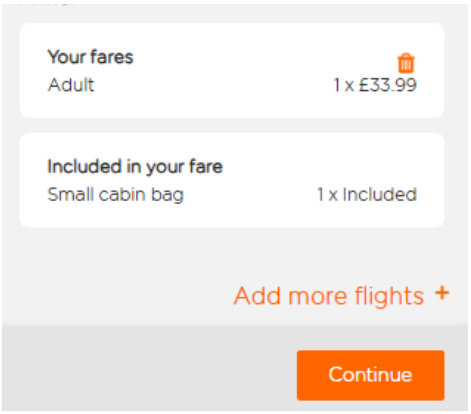


On the same page below, we also have recommendations provided by the website to suggest alternative holiday locations within the user's criteria.



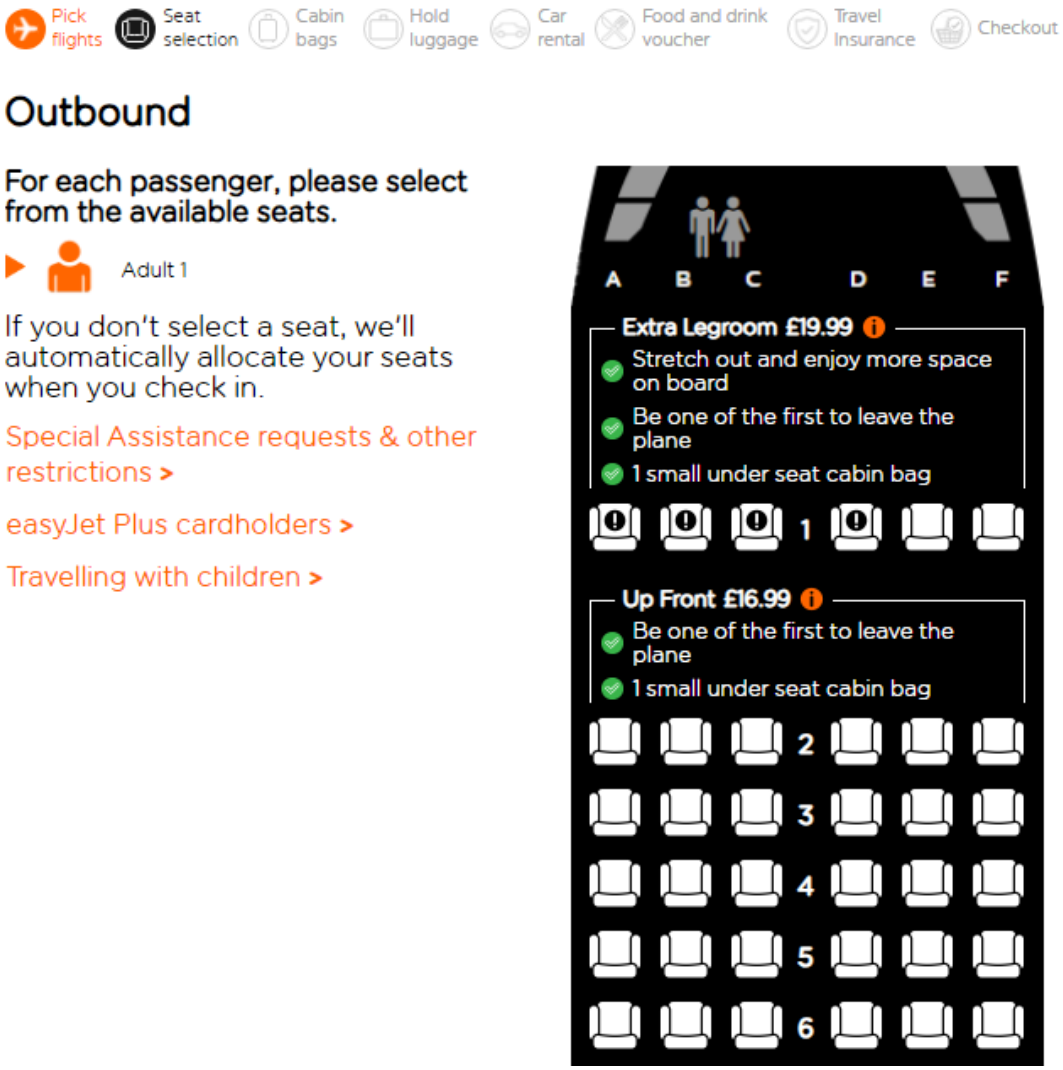
Selecting a flight

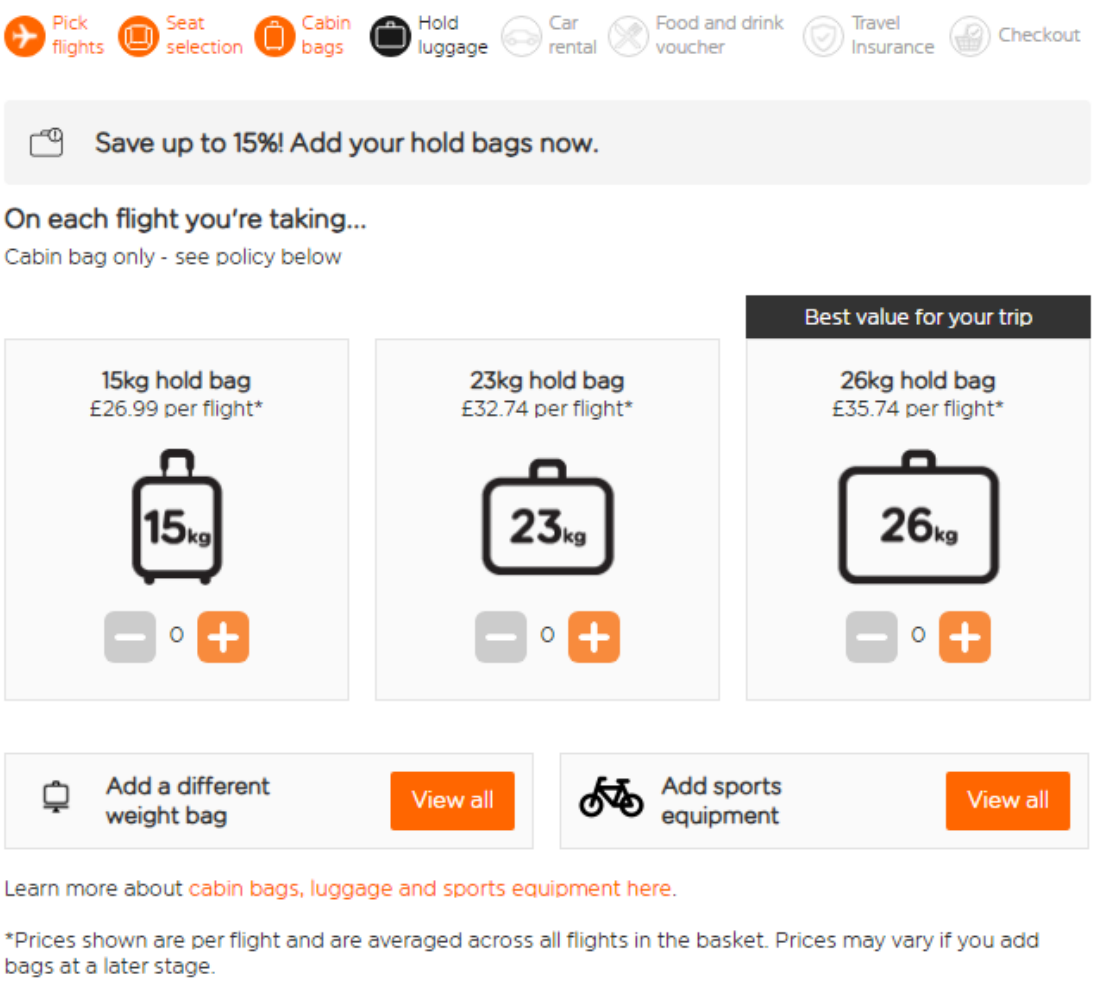
The user at this point will review their available flight options and eventually decide based on prices, departure times and durations. Once complete, the user must select the 'continue' option to progress further with their decision.



Registering passenger details

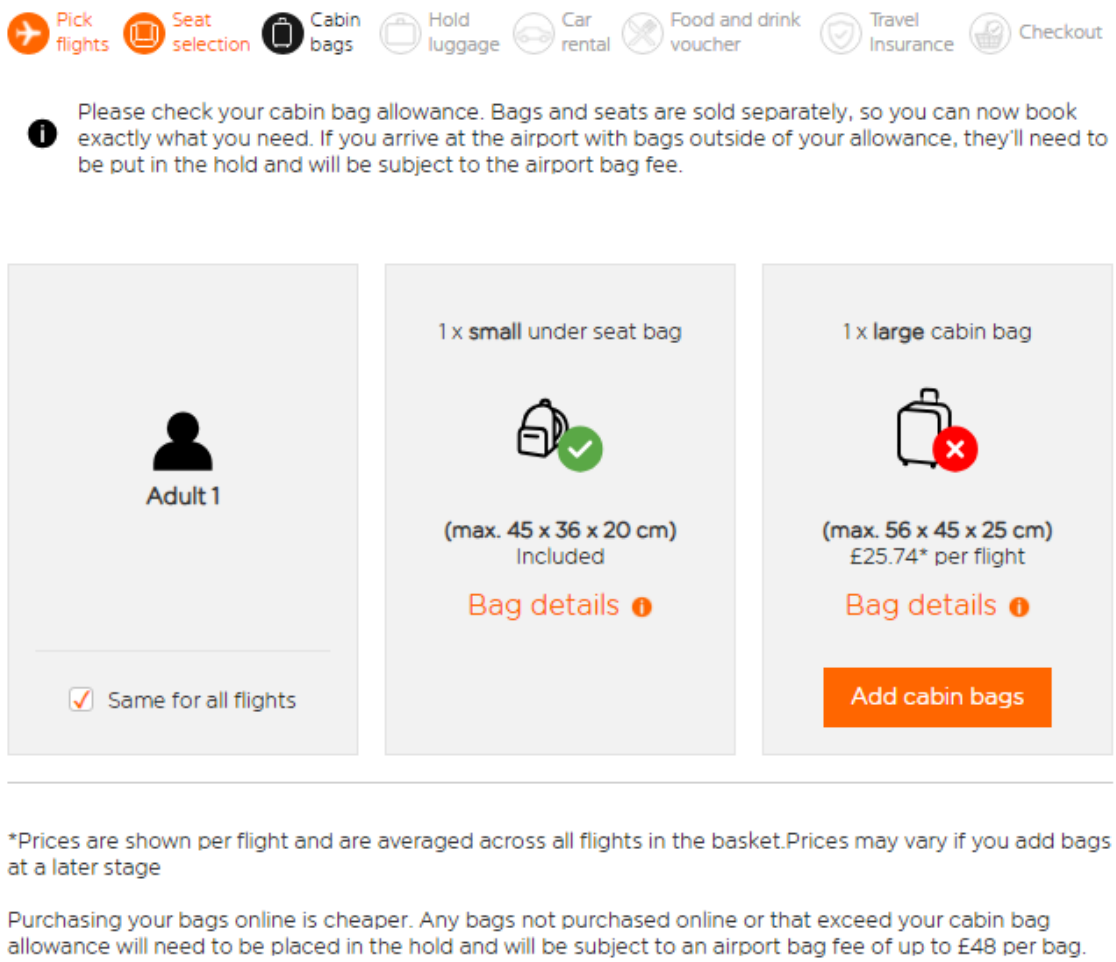
At this stage, the user is prompted to input relevant passenger information including names, dates of birth and any special assistance requirements. At this point the user may also choose to register any checked baggage or seat selection.





Reviewing booking details

The website will present a summary of the booking details including flight itinerary, passenger information, any extras and total cost. At this stage the user should verify that all information is correct before proceeding to payment



Entering payment information

The user is then brought to a screen, prompting them to provide payment details including credit card information and location. Confirmation should be made regarding the billing information and any additional payment method information.

Pick flights | Seat selection | Cabin bags | Hold luggage | Car rental | Food and drink voucher | Travel insurance | Checkout

You have not added any bags to your basket. The price might be higher after checkout. Are you sure you want to proceed without any hold bags?

23kg hold bag
£32.74 per flight*

0

*Prices shown are per flight and are averaged across all flights in the basket. Prices may vary if you add bags at a later stage.

All fields are required unless marked as 'optional'.

Booker's contact details

Details of the person making the booking. We'll use these to get in touch about your flights.

Title

First name

Surname(s)

Email address

ohlordterry@gmail.com

Create a password Show password

Address

Address continued (optional)

Town/City

Postcode/zip

Country

United Kingdom

International dialling code

+44

Telephone number (to contact you for any important updates regarding your booking)

easyJet Plus number (optional)

Keep me signed in
What are the benefits?

easyJet offers and updates
As an easyJet subscriber we'll send you digital updates about our special offers, holidays and inspiring news on flights and easyJet travel products and even our exclusive Flight Club.

Yes No ✓

easyJet partner offers and updates
Would you also like to receive digital updates about our partners' travel related products to help you get the most from your trip?

Yes No

Remember you can manage your preferences through your account at any time.

View our privacy policy and terms and conditions

Continue

Passenger details

Terms & Conditions

Booking confirmation

Upon successful payment and processing, the user would receive a confirmation that their flight booking has succeeded. Additionally, the user may receive an email confirmation with the booking details and a booking reference number.

User Interface Reflection

Throughout this process, the user interacts with the EasyJet interface, inputs appropriate information, makes selections and reviews details to complete the booking successfully. The cognitive walkthrough above details the actions in a simplified manner from the perspective of a new user. The interface as it stands has both positive and negative effects regarding the HCI heuristics and overall user experience; documented below.

How difficult in the process overall?

In my opinion, EasyJet made an accessible and structured interface designed to guide the user effectively through scheduling a flight to fit their criteria. It's overall easy to navigate for both new and experienced users and properly indicates information in a clear and concise manner.

Positive regarding user interaction

Firstly, the EasyJet website provides clear feedback on the booking process, supporting the HCI heuristic of properly displaying the system status. Another good example is the consistency and standards; the website follows established design standards and conventions, making it easy for users familiar with online booking systems to navigate; more common interface elements such as dropdown menus, buttons and forms are used consistently throughout the interface. This could also tie in to the error prevention present within the interface, as these common elements incorporate error prevention mechanisms effectively. Finally, the interface offers flexibility and efficiency of use elements such as the ability to save passenger details and preferences.

Negatives regarding user interaction

Firstly, EasyJet seems to utilise certain bespoke terminology that doesn't match between system and the real world. A good example of this is the terms used for fare types or optional extras may not be immediately clear to all users, leading to confusion. While the website generally provided feedback on the booking process, there're instances where the status indicators are not prominent enough or are off to the side which could lead to uncertainty about the progress of their flight booking. Finally, the website, while functional, can appear cluttered or overwhelming at times for some users due to the abundance of information and promotional content on each page. I personally believe that simplifying the design and prioritizing the essential information could overall improve the user experience.

Part 2 – Iterative Prototype design

Building / Home / Automation App

Overview

Immediately my mindset of going into designing the UI for this specific interaction sequence is the layout of an app which is designed to be extremely easy to use and accessible. The nature of utilising network-aware devices is to be convenient and so I believe I need to emulate that in my application design. Overall, the application needs to provide users with an intuitive interface to manage and control connected devices. Finally, it needs to offer features such as device control, scheduling, notifications, and settings customization.

Low Fidelity Prototyping Overview

Interaction sequence diagram:

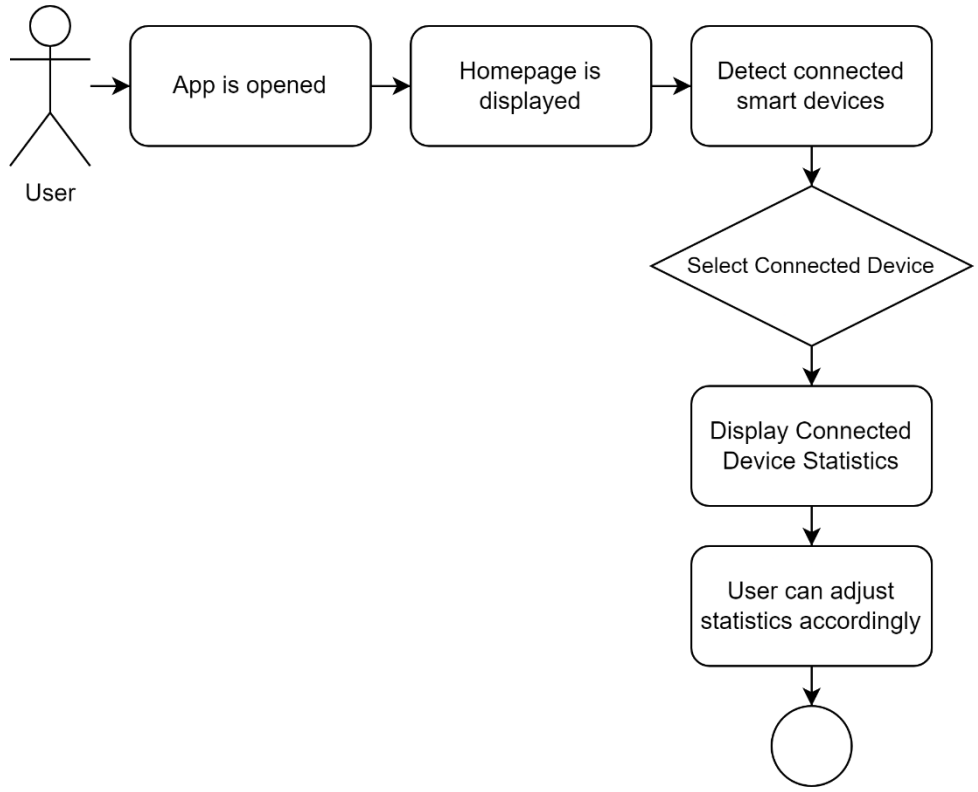


Figure 5- Use case diagram of user interface.

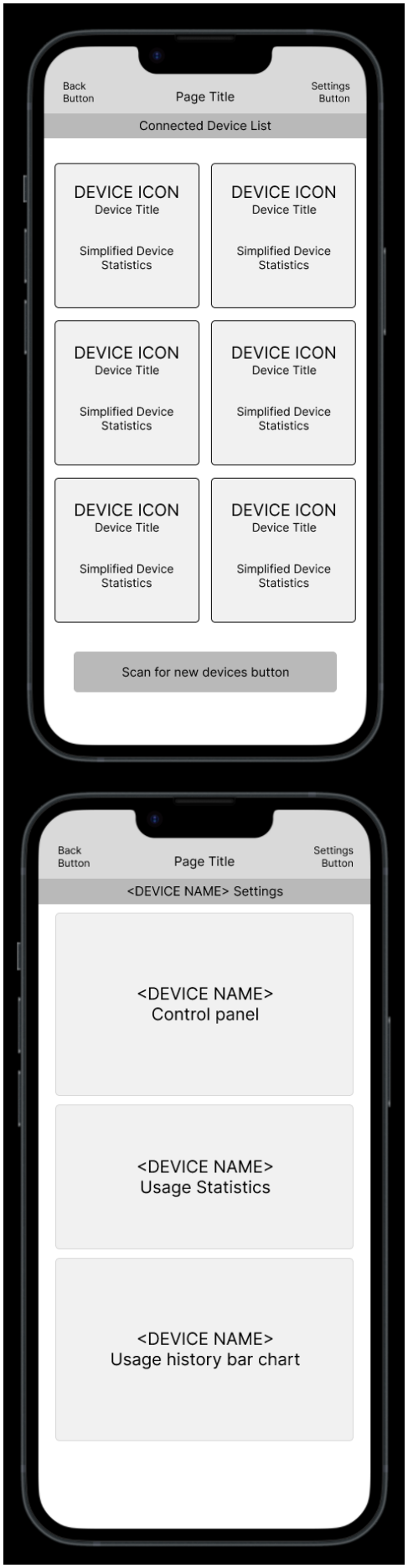
The above workflow documents the general use case of my user interface. It's deliberately designed in a simple and concise manner to accommodate the user's needs to immediately make changes while at home.

Design Statement

The design begins to establish the core concepts of our user experience and creates the backbone of our entire user interface. The home page will automatically adjust based on connected devices and information they display directly integrates appropriate HCI heuristics. The user interface will be prototyped using Figma, allowing for interactive mock-ups and usability testing to gather feedback and iterate on the design The details regarding choices regarding the HCI implementation is listed below.

Interaction Sequences

The interface design will account for two interaction sequences to a high amount of detail. Firstly, will be when a user wishes to add a new device on their local network. The app will provide an interface to help aid the user in finding and adding their device to the system. The next interaction sequence will be when the device has been added and the user wishes to adjust the properties of the device. In this case, the user can simply click on the connected device which will be displayed on the home page accordingly, and change based on the behaviour of the device.



Implementation of HCI heuristics:

Visibility of System Status:

Users of the app are constantly informed about the status of their connected devices with clear indicators of any errors.

User Control and Freedom:

Users will have full control over their device's actions with the ability to revert any unnecessary changes made as well as a clear path for navigation.

Consistency and Standards:

The interface follows consistent design patterns and uses familiar user interface designs to accommodate users.

Error Prevention:

Errors are properly displayed through clear labelling, the use of confirmation dialogs for impactful decisions and a simple and intuitive design to minimize the number of mistakes.

Recognition over Recall:

The interface presents users with visible options and actions as opposed to relying on remembering. This psychologically allows for easier interaction.

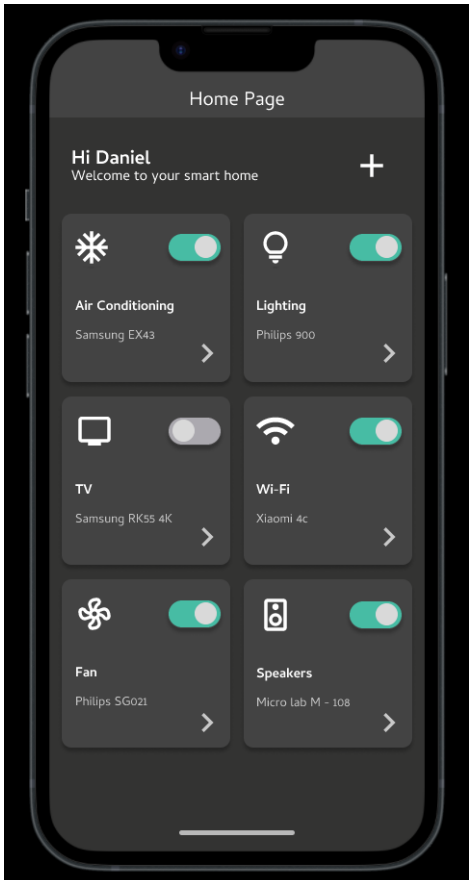
Flexibility and Efficiency of use:

The interface accommodates both new and experienced users as it efficiently guides the user through step-by-step processes for device setup and management.

Aesthetic and Minimalist Design

The interface maintains a visually pleasing design without unnecessary clutter, focusing on essential information and actions to streamline the user interaction.

High Fidelity Prototyping Overview



Design Statement

Building on the low fidelity prototype, in terms of the design of the app was especially easy and it was already established previously. The major considerations regarding the high fidelity were establishing the colours and fonts. Any assets utilised were provided by google and is not under any copyrighted protections. The Figma Showcase also includes transition animations between frames to prototype the final look and feel of the UI.

Colour Theory

Throughout the development process I began to establish a specific pallet of colours to work with my user interface. I eventually settled on the colours displayed as, firstly, I believe the colours consider accessibility guidelines such that the text clearly contrasts against the background to allow for those with colour vision deficiencies to easily read the elements. Also, the main elements on screen utilise more subdued colours to encourage focus and concentration as I evaluated that the app will probably be used at darker times.

Personal Supervisor System / Student Wellbeing

Overview

As expressed in the previous UI development, I believe a system like this requires the interface to be easy to use yet efficient. Previously I had developed a UI for the assignment however I personally believe this UI to be quite inefficient. The UI should be designed in a way that allows students to effortlessly express their emotions and feelings on any given day meaning the provided options should be readily available and easily accessible. Previously, the application I designed was made as a computer application only and was designed around such however this time to allow for optimal workflow, I've planned to design the UI around a mobile application instead.

Low Fidelity Prototyping Overview

Due to our system having two individual shareholders, I've developed UI use cases for both parties and will begin to develop both designs in tandem. Both designs will account for appropriate HCI heuristics and will both feature different interaction sequences.

Student Interaction Sequence Diagram:

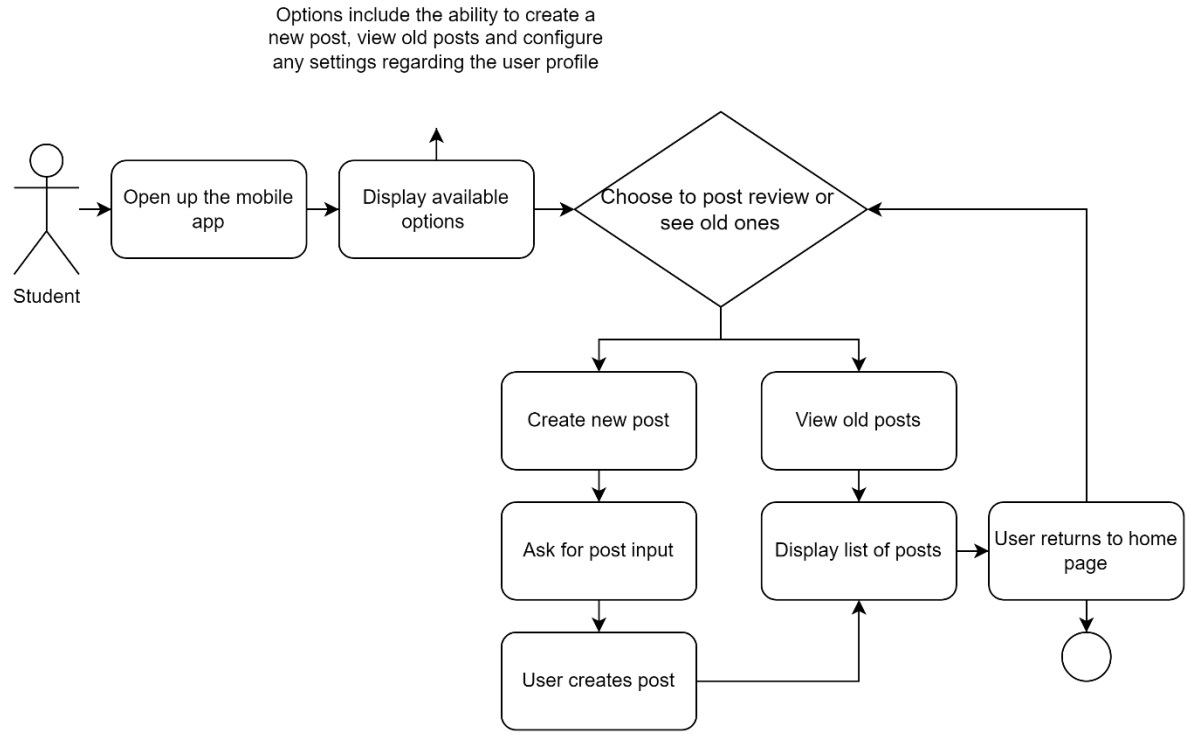


Figure 6 - Student Interaction Sequence

Personal Supervisor Interaction Sequence Diagram:

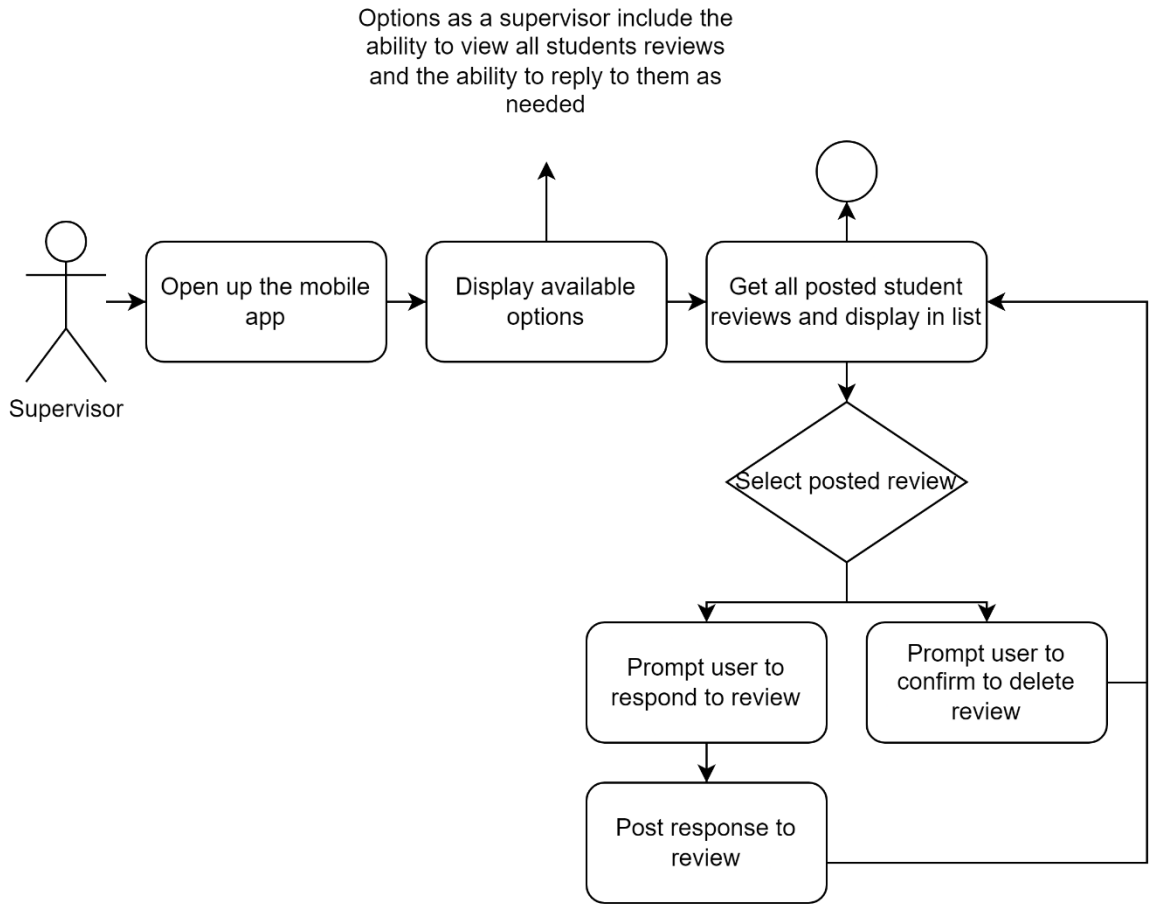


Figure 7 - Personal Supervisor Interaction Sequence

The above documents detail a brief and concise interaction diagram for each of the shareholders in our system. The UI will be appropriately designed around these interactions and in terms of the prototypes, will feature predominantly these use cases.

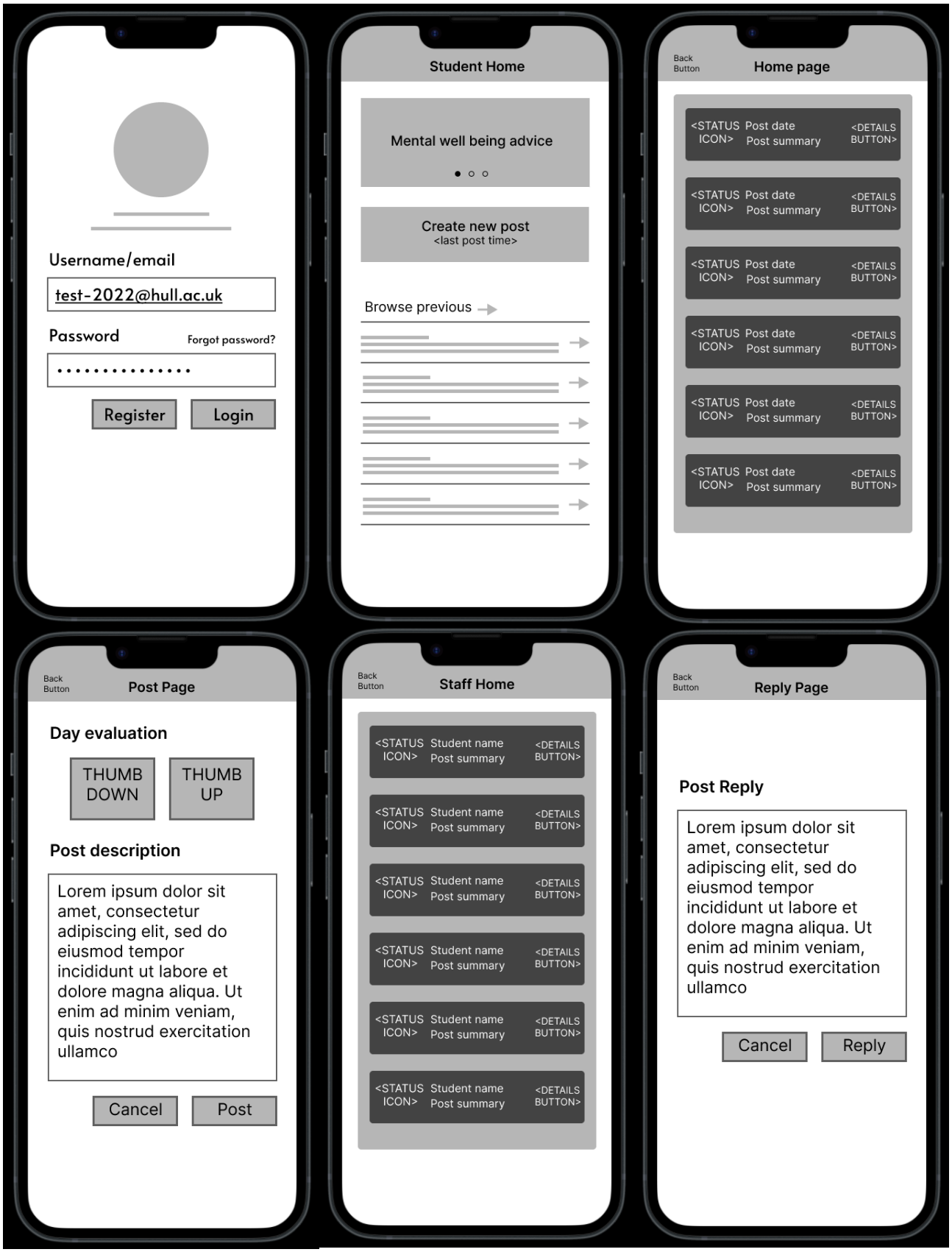
Design Statement

My low fidelity design will begin to establish our fundamental use cases and individual shareholder interactions. In this specific interface, I need to account for two different shareholders and so I've decided to design two distinct variations of the application for both users. In terms of producing the app it obviously wouldn't be two separate applications however in this case I will treat it as such to distinguish them in the prototyping phase. Both iterations will abide by the specific HCI heuristics and will stay similar with colour scheme and design choices. The prototypes will be done using Figma to allow for the interactive mock-ups and demonstration of animated elements.

Interaction Sequences

Firstly, the main interaction sequence of the student side will be the ability to post a review on any given day. This sequence should be refined and created in a way that easily and efficiently allows students to post and resume their day. The secondary sequence would be the ability to view their previous posted reviews, which would also tie into the supervisor side as to see what their personal supervisor has responded to their review. When it comes to the supervisor, they need to the ability

to view all posted reviews by any students and so having a sorted list of these elements should be perfect for this use case. Within this list the ability to respond to reviews will also be present, an option on each of the sorted reviews would easily allow the supervisor to respond to multiple at a time efficiently.



Implementation of HCI heuristics:

Visibility of System Status

Both students and personal supervisors are clearly informed about the status of their actions, whether it's creating a post or waiting for a supervisor's reply.

Match between System and Real world.

The overall design is very familiar and akin to other mobile application user interfaces. This creates a sense of familiarity and will feel intuitive to users.

User Control and Freedom

The interface provides the users control over their actions and the ability to go back and cancel any mistakes. Also allowing users to easily navigate back to previous steps without any delay or penalty.

Consistency and Standards

The interface is consistent throughout in term of design, layout, and interaction patterns.

Error Prevention

Within the deployed build the interface will feature client-side mechanisms to prevent errors such as confirmation dialogs before important actions such as creating a post or cancelling a post.

Recognition rather than recall

The interface is designed simply and concise, meaning that the navigation and systems in place are easily accessible and laid out. This benefits users as instead of needing to remember certain functionality, it is simply explained visually for them.

Flexibility and Efficiency of use

The interface is designed in a way that both experienced and new users can easily utilise the functionality of the application.

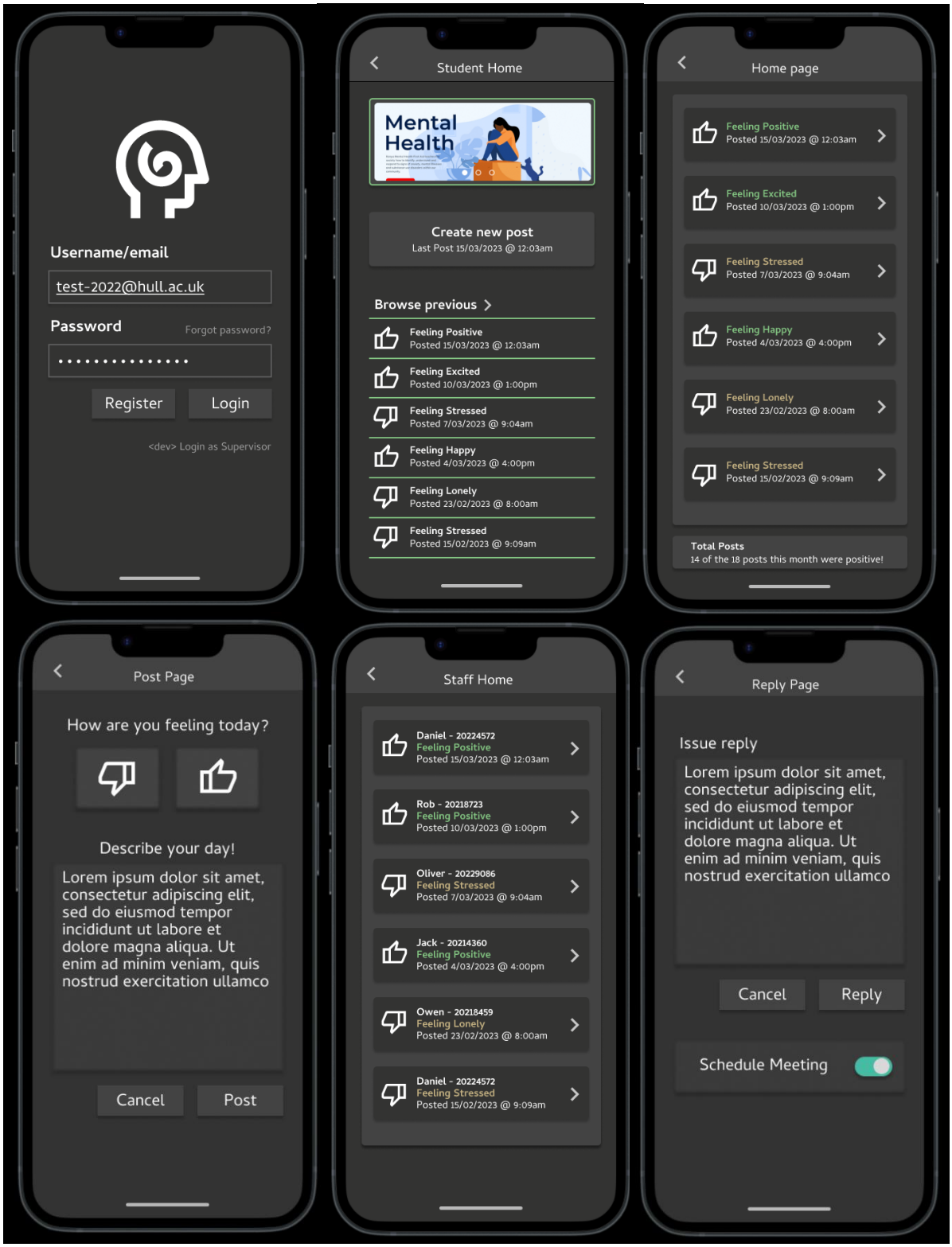
Aesthetic and Minimalist Design

I personally believe that the design is visually appealing and focuses on the essential information and functionality.

High Fidelity Prototype Overview

Design Statement

As mentioned in the previous interface, developing the high fidelity was manageable as the core foundation of the UI was established within the low fidelity model. Throughout the process, I kept in mind the various HCI heuristics required and ensured that all interfaces use cases were met and to a good standard. Through the use of the Figma Showcase, I've also managed to demonstrate a look into how the animations and transitions will look within the deployed interface.



Colour Theory

I established a fundamental pallet of colours going into the high fidelity and decided on the utilisation of more sombre colours to create a sense of comfort within the user. This is to reinforce the purpose of the application in creating a comforting and positive atmosphere for the students. The use of green accents is also prominent on certain screens as researching regarding the use of green in apps, it encourages 'growth', insinuating the growth of a student's mindset utilising our application. Finally, the use of a darker theme with contrasting text allows us to accommodate for those with vision impairments.

Part 3 – Functional, responsive front-end UI