Project 5 - Affinity Diagram Report

Ellen Feuchtwanger (30/12/2020)

Executive Summary

Subject Matter
This report presents my finalised Affinity Diagram, analysis and insights into Airline Mobile Apps.

Method of Analysis
Together with a group of three airline app users and technical or design experts, we reviewed and discussed my research and analysis findings to produce the Affinity Diagram.

Creating an Affinity Diagram is a critical stage in the UX Design process. The key benefit is it allows us to structure qualitative data through collaborative analysis. Identifying connections and relationships within the research data aids our analysis and synthesis of the findings.

The Affinity Diagram method produces deeper insights, highlights key pain points and helps collaboratively develop potential solutions. I will use these insights to inform my Customer Journey Map and design decisions.

Key Findings and Insights summarised
- The key pages customers use are 'Home Page' 'Navigation Menu' 'Flight Search' 'My Trips' and 'Check-in'.
- Utilize the Proximity and Alignment Principles to create a clear visual path and hierarchy. Group related items and separate unrelated elements using margins of negative space.
- Utilise the Economy and Organisation principles to create a simple, uncluttered, easy to navigate but informative structure. Only display relevant information and options. Locate the most critical elements for users at the top of the page.

Key User Pain Points summarised
- Pages that are cluttered, confusing and hard to navigate.
- Limited or irrelevant options created a negative response from users.
- Important information that is hidden or hard to locate.

Recommendations summarised
- I recommend locating a Primary Navigation Bar Menu at the top of the Home Page, containing links to the key pages; "Flight Search", "My Profile / My World", "Check-in" and a link to view the full "Secondary Navigation Menu".
- Airline app pages and features need to be highly customisable, personalised and intuitive to meet user expectations, needs and preferences.
- Utilise space, by only including important and relevant information and calls-to-action.
- Use a neutral colour scheme such as blue or green.
- Colour-coordinate key elements and calls-to-action to make it easier for users to locate them.
- Include clear labels, instructions, feedback, error and confirmation messages.

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Scope

Goal

The main goal of creating an Affinity Diagram is to organise and analyse relationships in your research, in order to gain useful insights.

Participants

Technical Experts and Airline Users
- Ellen Feuchtwanger - UX Design student
- James Kay - Programmer *(Usability test participant)*
- Nathan Stephenson - BT Communications Specialist
- Georgina Vaughan - Creative Designer

My research topics

1. **Competitive Benchmark Reports**

   a. UK mobile airline apps

   b. USA mobile airline apps

2. **Online User Survey Report**

3. **Usability Testing Reports**

   c. My Usability test 1 notes

   d. My Usability test 2 notes

   e. Notes from Project 3 - videos of user testing

Final Affinity Diagram and User Journey Map

Final Affinity Diagram

AFFINITY DIAGRAM FLOW CHART FOR AIRLINE MOBILE APPS

Ellen Feuchtwanger

Key Page: Home

Primary Navigation Bar

Key User Journey A
Goal: Book a Flight

Key Page: Search Flights

Saved Searches

Search Results

Seat Upgrade

Class Upgrade

Luggage Upgrade

Itinerary

Upgrades

Payment

Explore

Travel Insights

Key User Journey B
Goal: Check-in

Key Page: Check-in

Key User Journey C
Goal: Account and Flight Management

Key Page: Secondary Navigation Menu

Key Page: My World (Sub-heading)

Help

About

App Settings

Contact Us

F.A.Q.s

My Trips

Onboard
- WiFi
- Entertainment

Car Parking

Track Bags

Flight Booking Lists
- Future Flights
- Past Flights

My Account

Travel Miles

Membership Account Details

My Wallet

My Payments

My Vouchers

Travel Fees

Currency Converter

Results: User Pain Points, Insights and Recommendations

Key Insights

The most important category groups in order of importance to users are:

1. **Home Page**	100% of customers will use the Home Page because it is the landing page.
2. **Flight Search**	When surveyed 86.7% of users said they used the Flight Search page when they last visited an airline app.
3. **Navigation Menu**	When surveyed 80% of users said they used the Navigation Menu when they last visited an airline app.
4. **Check-in**	When surveyed 40% of users surveyed said their key goal or task was to check-in to a previously booked flight.
5. **My Profile / My World**	When surveyed 33% of users surveyed said their key goal or task was flight management.

We identified the Key User Journeys through the Airline App to complete the main tasks users need to complete. (See "User Journey Flow Diagram" on the previous page)

Key User Journey 1:
- **Goal**: Search for flights for a future trip
- **Process**: Home Page - Flight Search - Search Results - Itinerary
- 86.7% of users used the Flight Search page when they last visited an airline app

Key User Journey 2:
- **Goal**: Check-in to a previously booked flight
- **Process**: Home Page - Check-in - Boarding Pass
- 40% of users surveyed said their key goal was to check-in

Key User Journey 3:
- **Goal**: Check-in to a previously booked flight
- **Process**: Home Page - My World - My Trips
- 33.3% of users surveyed said their key goal was flight management

Layout and Structure

- Create a clear visual path and hierarchy:
  - Utilize the Proximity and Alignment Principles
  - Group related items in close proximity to highlight the relationship.
  - Separate unrelated elements using borders, padding and margins of negative space.

- Utilise the Economy and Organisation principles to create a simple but informative structure:
  - Only show relevant information and options

- Uncluttered and easy to navigate pages:
  - Utilise space, by only including the most pertinent information and relevant elements, information and calls-to-action
  - Ensure the links to key pages users need are prominent

- Locate the most critical elements for users at the top of the page, as the user's mental model assumes this is the most important information so it grabs their eye first.

- Employ the Contrast to highlight key information and icons:
  - Use a bright, contrasting colour for key elements, and margins of white negative space.

- Simplify navigation and booking management for users by grouping all the membership account pages under a subheading, such as 'My World'. This will make it easier for members to find all the information they need.

- It is Best Practice to have a Navigation Bar or 'Back to Navigation' Button on each page.

Visual Design

- The visual design should be modern, visually appealing and uncluttered

- A neutral colour scheme creates a calm and professional atmosphere.

- Employ to Repetition Principle to create a consistent and cohesive design:
  - Colour-coordinate key elements and calls-to-action to make it easier for users to locate them on every page.

Users expectations and needs

- Users want a large variety of options, at cost effective prices:
  - Users were frustrated if there were unavailable or irrelevant options.
  - It also created a negative emotional response if there were limited options, that did not meet their expectation, key factors and preferences.

- Include clear instructions, feedback, error and confirmation messages:
  - Clear labelling and layout is essential to make it easier for users to understand, navigate and use pages and navigation menus.

- - The "Feedback" and "Warning Messages" need to clearly explain what error has occurred, and how the user can correct the error or alternative next steps.

  - The Airline App needs to filter application feedback, to personalise it to the user.

- Users expect to easily locate the 'Contact' and 'F.A.Q.s' pages.

- Airline app pages and features need to be highly customisable, personalised and intuitive to meet user expectations, needs and preferences.

Key User Pain Points and Problems

- Pages that are cluttered, confusing and hard to navigate.

- Limited or irrelevant options created a negative response from users.

- Users experienced a negative emotional response if important information is hidden or hard to locate if the text is too small:
  - The presence of transfers/changes was not made obvious early.
  - Hidden fees and charges creating an unclear pricing structure and final prie being higher than the original quoted price.

- Do not assume prior knowledge - clearly label and explain important elements and calls-to-action

Recommendations

I recommend locating a Primary Navigation Bar Menu at the top of the Home Page, containing links to the key pages; "Flight Search", "My Profile / My World", "Check-in" and a link to view the full "Secondary Navigation Menu". This Global Navigation Bar will also be available on every screen.

Airline app pages and features need to be highly customisable, personalised and intuitive to meet user expectations, needs and preferences.

Utilise space, by only including important and relevant information and calls-to-action

Create a clear visual path and hierarchy by grouping related items in close proximity to highlight the relationship. Separate unrelated elements using margins of negative space. Locate the most critical elements for users at the top of the page, as the user's mental model assumes this is the most important information so it grabs their eye first.

Use a neutral colour scheme to create a calm and professional atmosphere, such as blue or green.

Colour-coordinate key elements and calls-to-action to make it easier for users to locate them.

Include clear labels, instructions, feedback, error and confirmation messages.

Save user preferences, filters and search results to save the user time in the future and decrease the need for user recall.

Affinity Diagram Categories - Analysis & Insights

The key goal of this section is to summarise the key learnings from each group. Synthesizing insights, pain points, user needs and common best practises. I will apply these learning during the design stage of the airline app project.

Key:
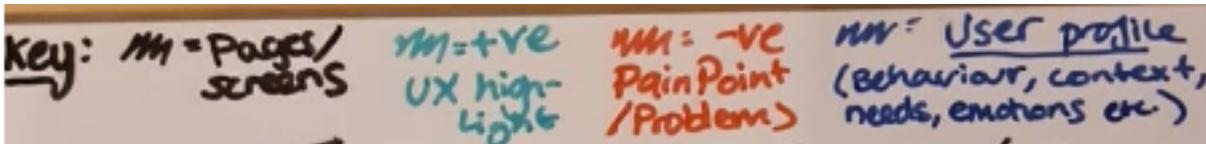
Types of research:
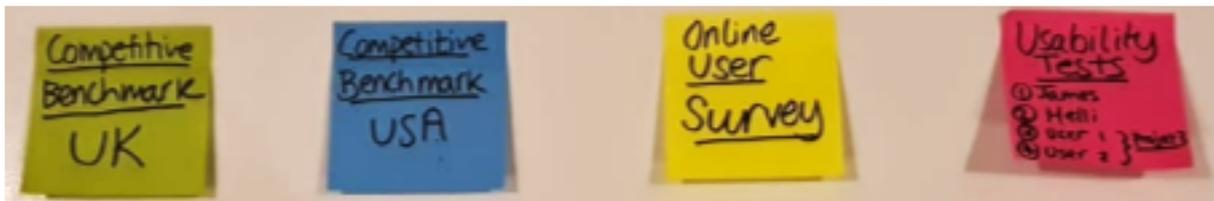
Category groupings:

We identified that the key pages users expect to find on an airline mobile app include:

1. Home page
2. Navigation page
3. Flight search page
4. Explore page
5. Results page
6. Itinerary (flight details) page
7. Upgrades sub-group
8. My trips sub-group
9. My account sub-group
10. Travel insights sub-group
11. Help sub-group
12. About page
13. Loading pages
14. Feedback and warning messages

We also grouped miscellaneous research insights, that did not fit into the airline app pages categories, into the following groups:

15. Key learnings and principles of UX and UI design
16. User research and insights sub-group

Home Page

Key Insights:

- Use bright, contrasting colourful icons to ensure links to key pages are prominent.

- Locate the most critical elements for users at the top of the page, as the user's mental model assumes this is the most important information so it grabs their eye first.

- Proximity Principle: Create a structured layout by grouping related elements in close proximity.

Key User Pain Points:

- Cluttered and hard to navigate homepages

- Out of date information

- Large advertisements disrupt the users flow

Key elements:

- Book Flight button

- Login button

- Flight Status Updates and Covid Safe Map
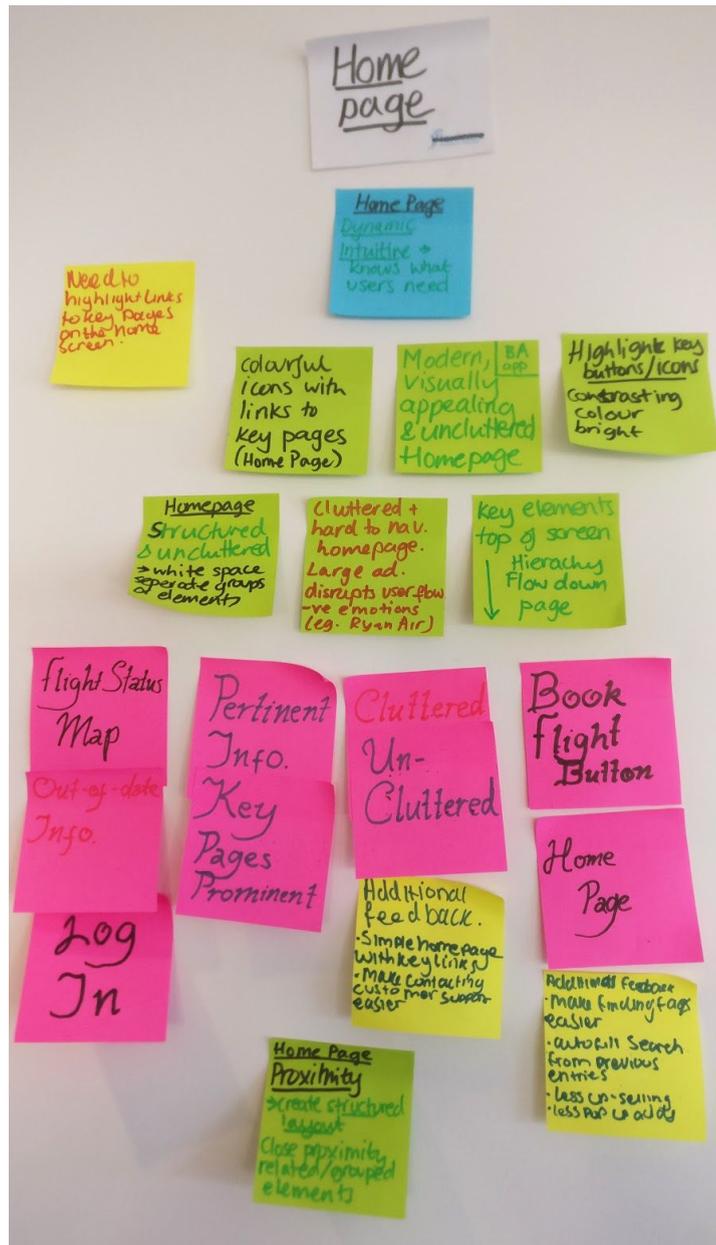
Homepages need to be:

- Dynamic and intuitive so they can meet users needs and expectations.

- Modern and visually appealing

- Uncluttered and easy to navigate

    - Only include the most pertinent information and relevant links

    - Ensure the links to key pages users need are prominent

Navigation Menu

Key Insights:

- 80% of users surveyed said they use the navigation menu, therefore it is a key element that needs to be easy to use.

- Locate the navigation menu at the top of the page so it is easy for users to find.

- Clear labelling and layout is essential for users' understanding.

- Split large menus into smaller sessions with subheadings to make it easier to navigate for users.

Key User Pain Points:

- Hard to locate - Navigation bar at the bottom of the page is hard to find.

- Poor structure, layout and labelling makes it hard for users to navigate and find the page they need.

Navigation menus need to be:

- Easy to find on the airline app.

- Clear structure and easy for users to locate the page they need.

Common Best Practises:

- Mobile or Horizontal Format.

- Mobile: local navigation only shows relevant pages to the current page, with an option to view the full global navigation menu.

- Horizontal: Primary navigation bar on each page with key links and an option to view the full secondary navigation menu. Using the same menus on each page creates uniformity and simplifies the navigation process for users.

Flight Search

Key Insights:

- This is a key page for users. 86.7% of users surveyed used the flight search function, when they last used an airline app. 60% of users said their key goal of using the airline app was to check flight prices and dates for a future trip.

- Create a clear visual path and hierarchy. Utilizing the Proximity and Alignment Principles, by grouping related elements. Separate from unrelated elements using margins of negative space.

- Employ to Repetition Principle to create a consistent and cohesive design, by colour-coordinating the key elements and calls-to-action. This grabs the user's eye and highlights key elements.

- It is vitally important to have clear and meaningful labels, to make it easier for users to understand, navigate and use.

Additional features & functions:

- A key feature to include that creates a competitive advantage is an early 'Sort & Filter' feature to create a highly customisable and flexible search function. This will personalise search results to the users needs.

- 'Saved Searches' feature to decrease time and need for user recall.

- 'Hotel & Car Hire' allows users to book the whole trip in one app.

Key User Pain Points:

- Users found it frustrating when the app did not remember their search preferences.

- Airport codes are opaque - we should not assume the users understand what the airport initials stand for, or any other prior knowledge. Therefore, to minimise confusion, it is best practise to label airport initials with the full airport name.

- All the flight search results were out of budget

Common and Best Practises:

- The industry standard input elements are:

  - Airport location search

    - Common practice is to use a scrollable list, however this is impractical for a large number of items. Therefore, it is best practise to minimise the number of airport locations to only those relevant to the user.

    - It is best practise to also offer search and GPS locator features.

  - Calendar (Date selection)

    - Users expect a 'Drag' selection feature for date ranges

 - Passengers (Quantity and age range)

  - Grade (Economy, Business etc.)

Explore

Key Insights:
- The Explore cheap flights page is a beneficial feature for price conscious users as it provides a list of the cheapest flights, organised into relevant categories.

- A common key feature is the 'Price Chart' with average flight prices per day.
  - 33.3% of users surveyed said they used the Price Chart.

- Users should be able to search for the cheapest flights for a given time period or location.

- An additional feature airlines offer members is a 'Price Alert' feature that saves and recalls their selected preferences and sends the user an alert when there is a new cheapest flight that matches their preferences.

Saved Searches
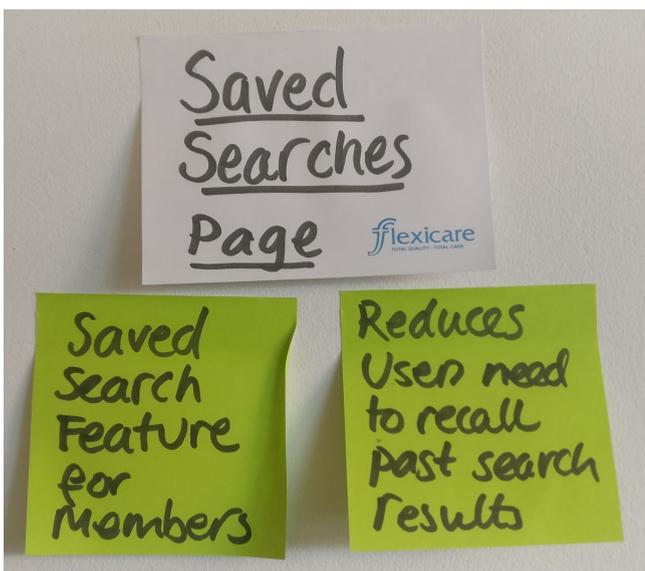
Key Insights:
- The "Saved Searches" feature is for airline app members only.

- The "Saved Searches" features key benefit is to reduce the users need to recall past research results. This decreases time for users as they do not need to re-enter flight search information. It also increases confidence in the system by increasing personalisation for users. This results in an increase in the likelihood of users returning to the app to complete their purchase.

Search Results page

Key Insights:

- We decided as a group to name this category 'Search Results' page, as it is concise but accurately describes the content and purpose of the page. Alternative options we discussed were 'Flight Search Results' and 'Flight Comparison' page.

- Users want a large variety of options, at cost effective prices.

- Utilise the Economy and Organisation principles to create a simple but informative structure.

    - Only show available and relevant flights and information to avoid making a cluttered and confusing page.

    - Add a banner at the top of the screen to show the key information users are looking for - dates, locations and prices.

Key User Pain Points:

- All the flight search results were out of budget.

- Users were frustrated if there were unavailable or irrelevant options.

- It also created a negative emotional response if there were limited options, that did not meet their expectation, key factors and preferences.

Common and Best Practises:

- The key flight categories are:
    - Faster
    - Cheaper
    - Greener

- Additional features and functions:

    - Price alert feature

    - Price chart - 33.3% of users surveyed said they used the price chart.

Itinerary

Key Insights:
- We decided as a group to name this category 'Itinerary' page, as it is concise but accurately describes the content and purpose of the page. Alternative options we discussed were 'Flight Details' and 'Flight Summary' page.

- It should contain all relevant information about the flight in one location for users.

- Clearly display and group related data. Separate unrelated elements using margins of white space. Highlight key information using colour and text size.

- Key features that encourage users to continue their flight booking at a later date - 'Share' and 'Save' features (especially beneficial for users that are booking as a group)

- Usability testing highlighted the benefit of including the flight terminal information, especially for Heathrow.
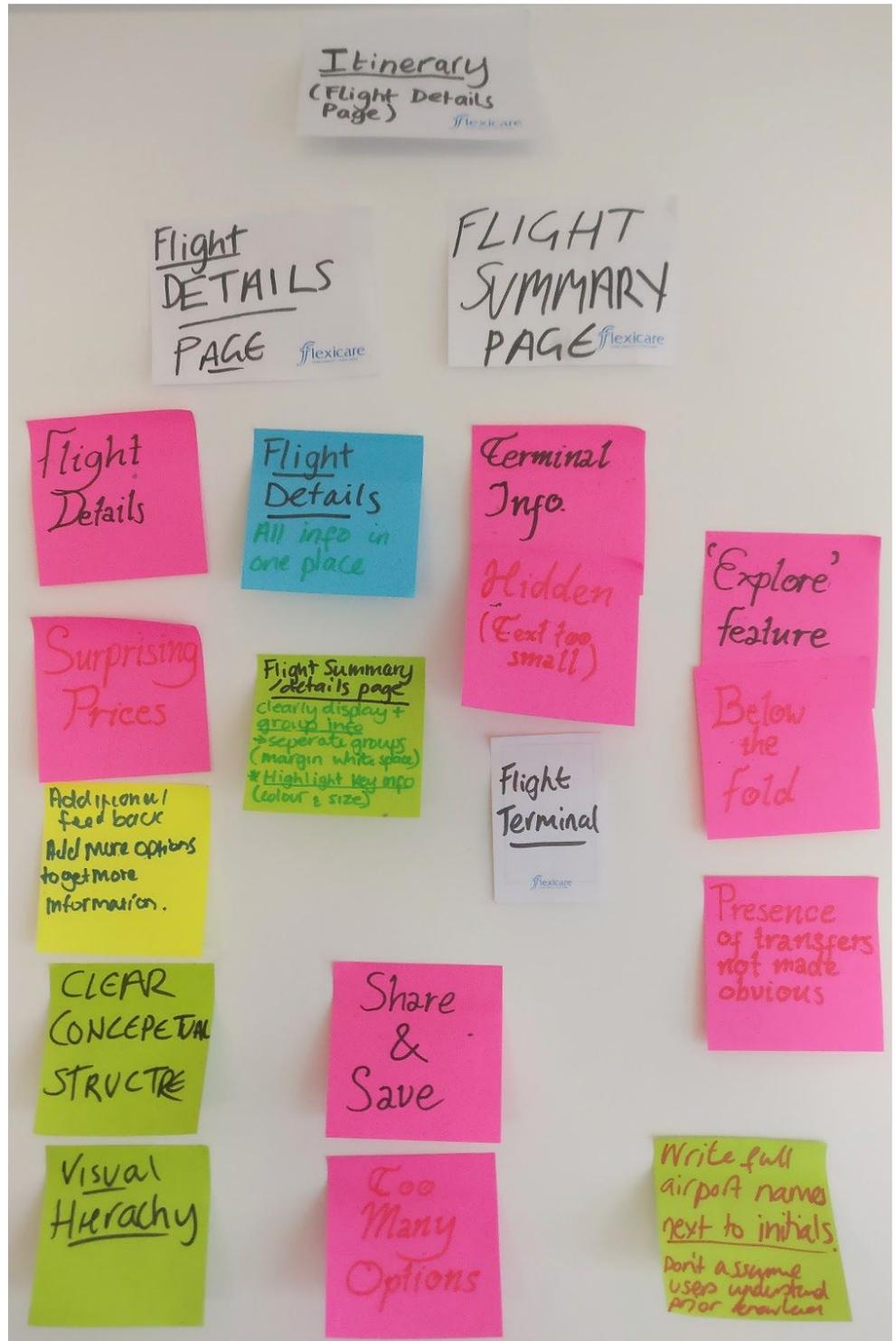
Key User Pain Points:
- <u>Users experienced a negative emotional response if:</u>
  - Important information is hidden or hard to locate if the text is too small.
  - The presence of transfers/changes was not made obvious early.
  - Hidden fees and charges creating an unclear pricing structure and final prie being higher than the original quoted price.

Upgrades

Key Insights:
- The "Upgrades" page includes extra upgraded features for flights.

- The key extras include upgrading the Seat Selection, Class and Luggage options.

- For seat selection there should be a diagram of the airplane. It should be clearly labelled and use colour coordination to make it easy to use.
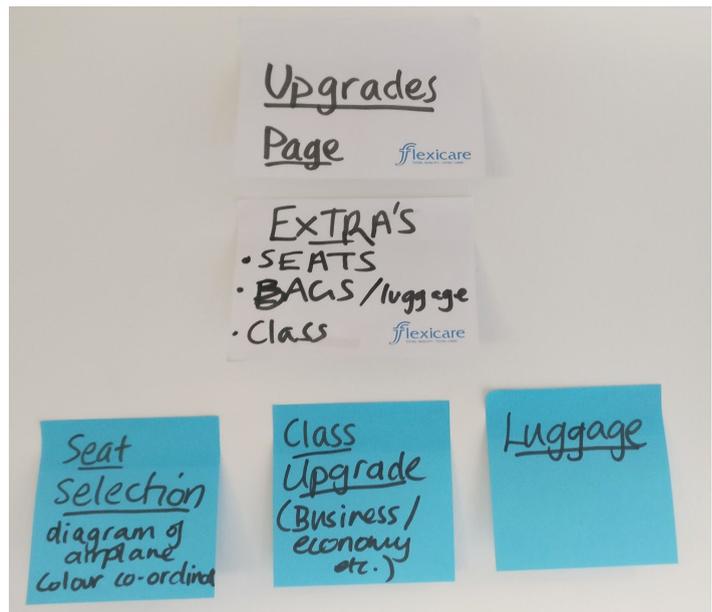
Payment

Key Insights:
- The "Payment" page for booking a flight needs to be simple and easy to use.

- Include clear instructions and messages.

- It is vital for users that the payment process is secure.

- Users said they expect a "Confirmation of Payment" message or pop-up screen to confirm the payment has gone through.

- Over one quarter (26.7%) of users surveyed last used an airline app to book and pay for a flight.
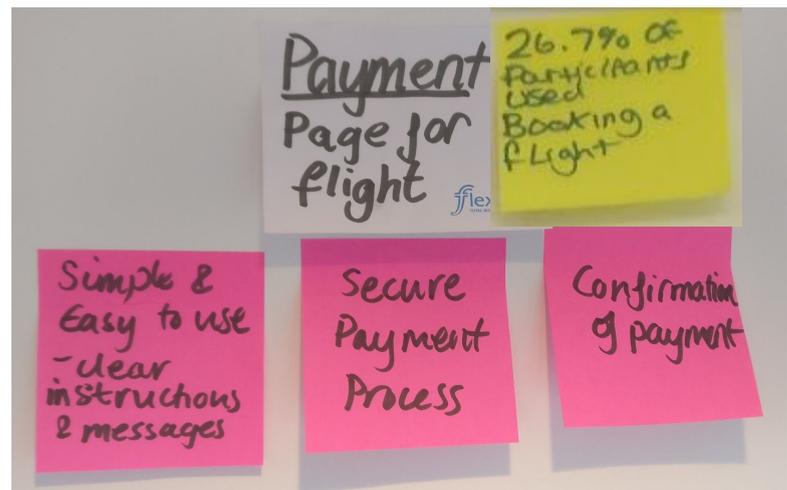
My World

Subheading

Key Insights:

- We discovered a vital relationship between the three groups 'My Account', 'My Trips' and 'My Wallet'. So we decided to arrange them in columns under a subheading 'My World', which will act as a 'My Profile' section of the website.

- The key benefit is this will simplify navigation and booking management for users.

- On the 'Secondary Navigation Menu' subheadings, such as 'My World' to group all the membership account pages. This will make it easier for members to find all the information they need.

My Trips

Key Insights:

- The "My Trips"page provides the user with two lists of all their past and future flight bookings.

- The online survey found that over one quarter (26.7%) of participants used the "My Trips" page to check booking details regarding future or past flight bookings.

- There should be links to further, related sub-pages:

  - **Key subpage: Check-in**

    - 40% of users surveyed used the airline app to check-in for a flight

    - The app should store online boarding passes

  - Car Parking information and stored details

  - Track My Bags page

  - Onboard - inflight wi-fi and entertainment

  - Interactive map of the airport
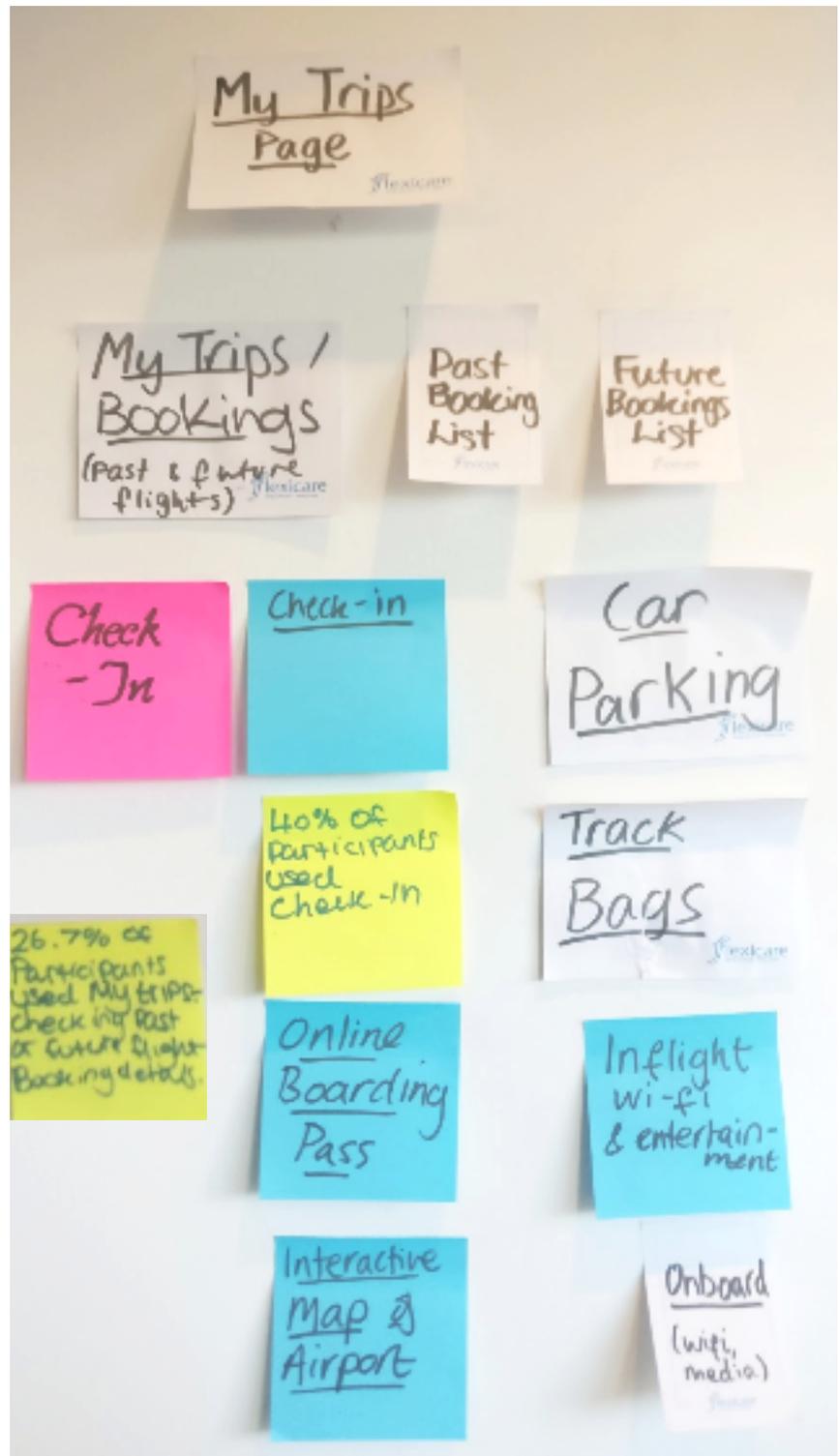
My Account

Key Insights:

- This page / feature is only available for members

- It should important information and travel insights for users, including:

    - The users membership account details and settings.

    - The travel miles the user has collected and how they can use them.

My Wallet

Key Insights:

- It should important information and travel insights for users, including:

    - A list of the users payments with payment details and receipts

    - My vouchers

    - Travel fees and charges

    - Currency Converter
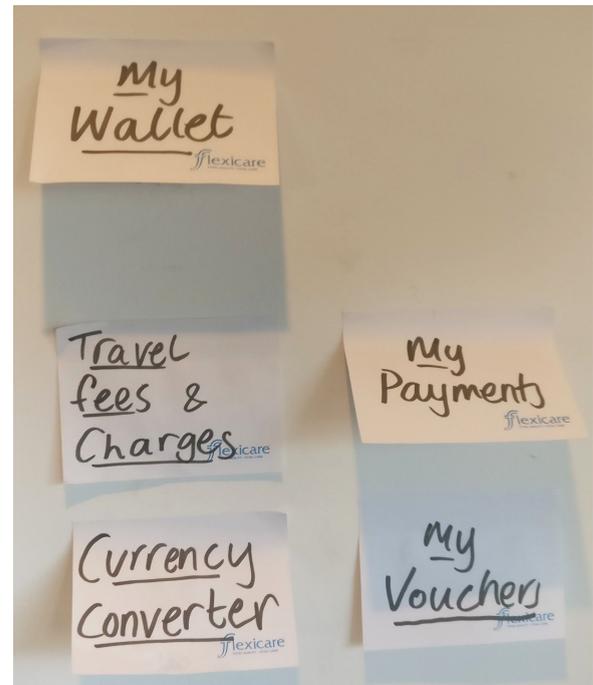
Travel Insights

Key Insights:

- It should important information and travel insights for users, including:
    - Live Flight Status Updates
    - Travel news and updates
    - Eco foot-print and CO2 emissions information
    - Covid 19 updates - restrictions and safe fly zones (for example, SkyScanner has a map of countries that are currently safe to fly to.
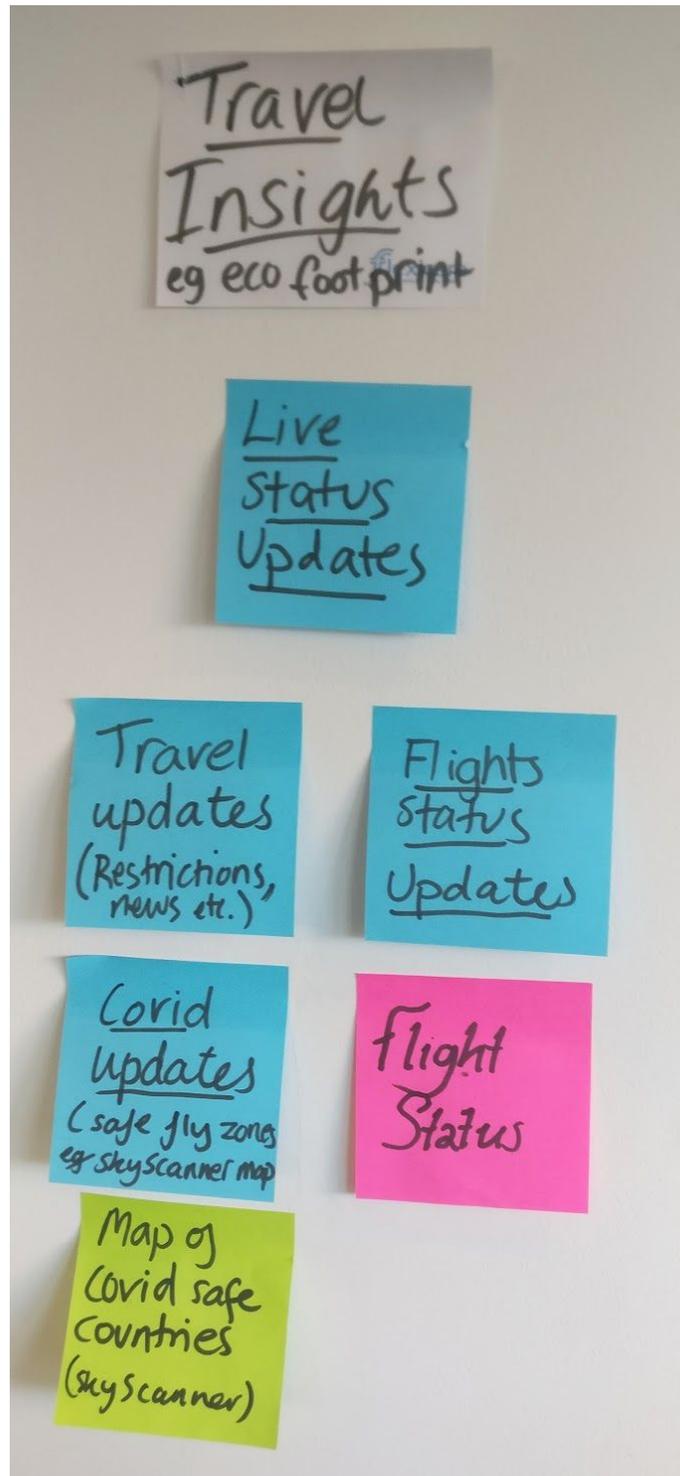
Help page

Key Insights:
- The "Help"page is also known as the "Support" page.

- It provides the user with useful information.

- It should include links to further sub-pages:

    - Expert Tips

    - F.A.Q.s

    - Settings

    - T&Cs

    - Privacy Policy

    - Contact Details

- The key benefits of the "F.A.Q" page (Frequently Asked Questions) is to reduce the need for direct contact with the airline for basic questions. This saves the business time and money on call centre staff.

- The 'Contact Us" page should include contact information:
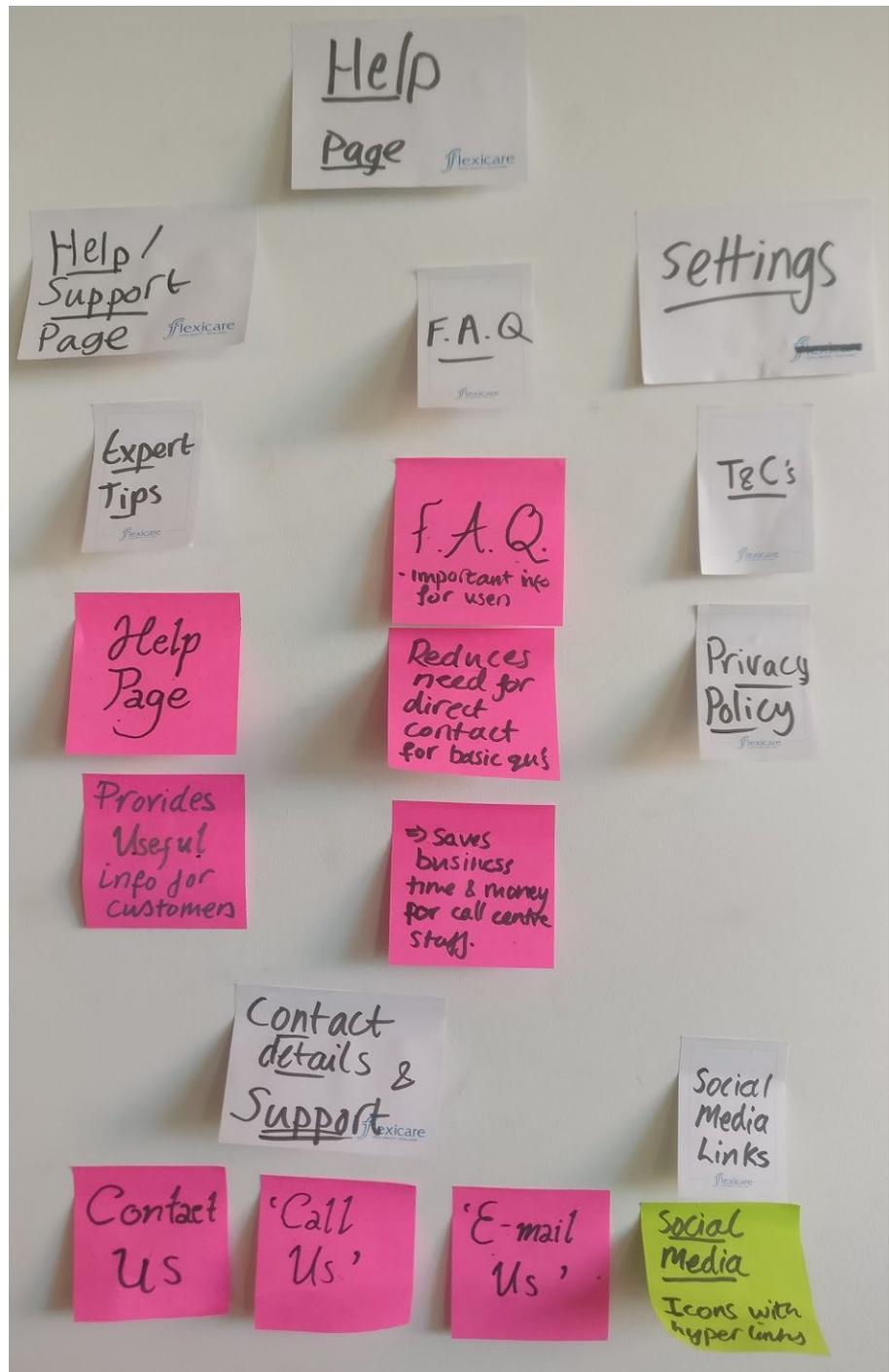
    - "Call Us" - Phone numbers

    - "Email Us2 - support email addresses users can contact to ask questions

    - "Social Media" links - icons with hyperlinks to their external social media sites.

About page

Key Insights:
- The "About" page contains information about the airline.

- Including information about the airlines:
  - Mission
  - Founding story

- There should be a link to a "Careers" sub-page
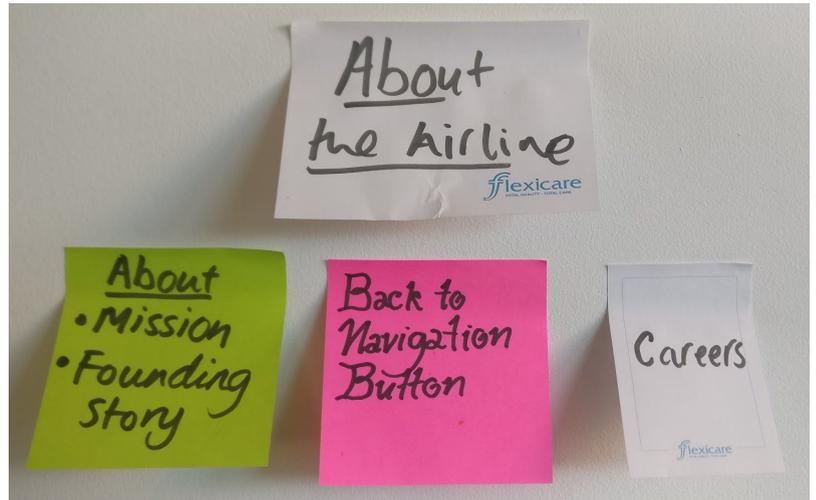
Key User Pain Point:

- A user interviewed was frustrated when one of the airline apps had no "Back to Navigation Button". This should be a Common Best Practise on each page.

Loading screens

Key Insights:
- The "Loading Screens" should include a "Progress Tracker" to provide the user with a live update about the progress of the task, ending with a confirmation message when it is completed.

- It should be personalised to the user and the task being completed.
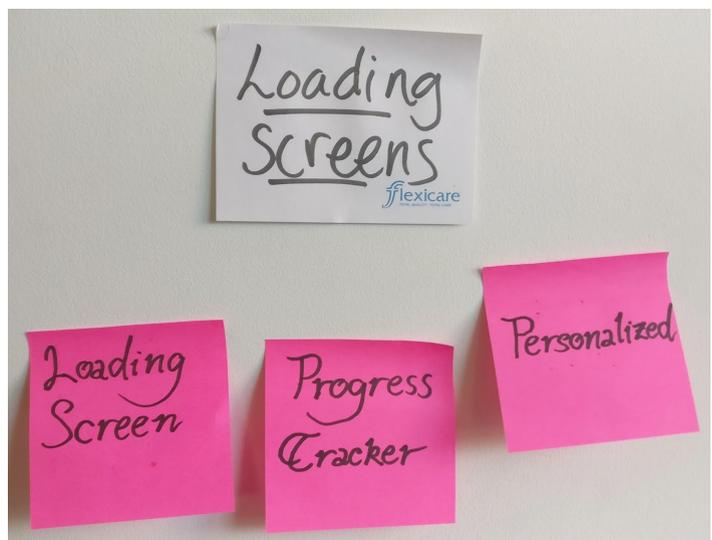
Feedback and Warning Messages

Key Insights:
- The "Feedback" and "Warning Messages" need to clearly explain what error has occurred, and how the user can correct the error or alternative next steps.

- The Airline App needs to filter application feedback, to personalise it to the user.
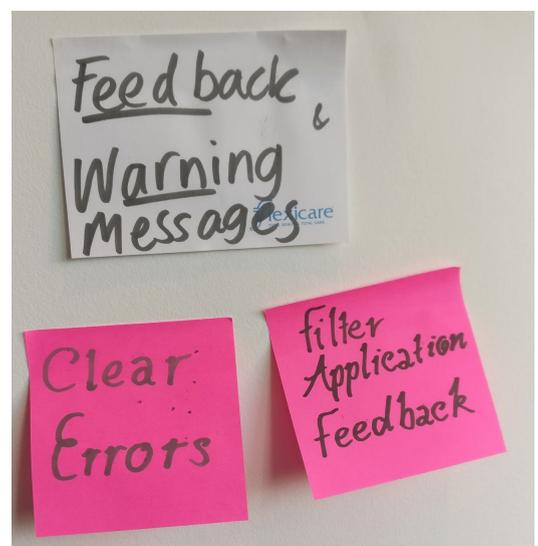
Miscellaneous Research Learnings and Insights

Principles of Visual Design Key Insights:

- Proximity: utilise space, only include relevant elements. Group related items in close proximity to highlight the relationship.
- Contrast: Use a bright, contrasting colour to highlight key information and icons. Use white negative space to separate unrelated elements.
- Alignment: Use borders, padding and margins
- Repetition: utilise pattern recognition to achieve balance
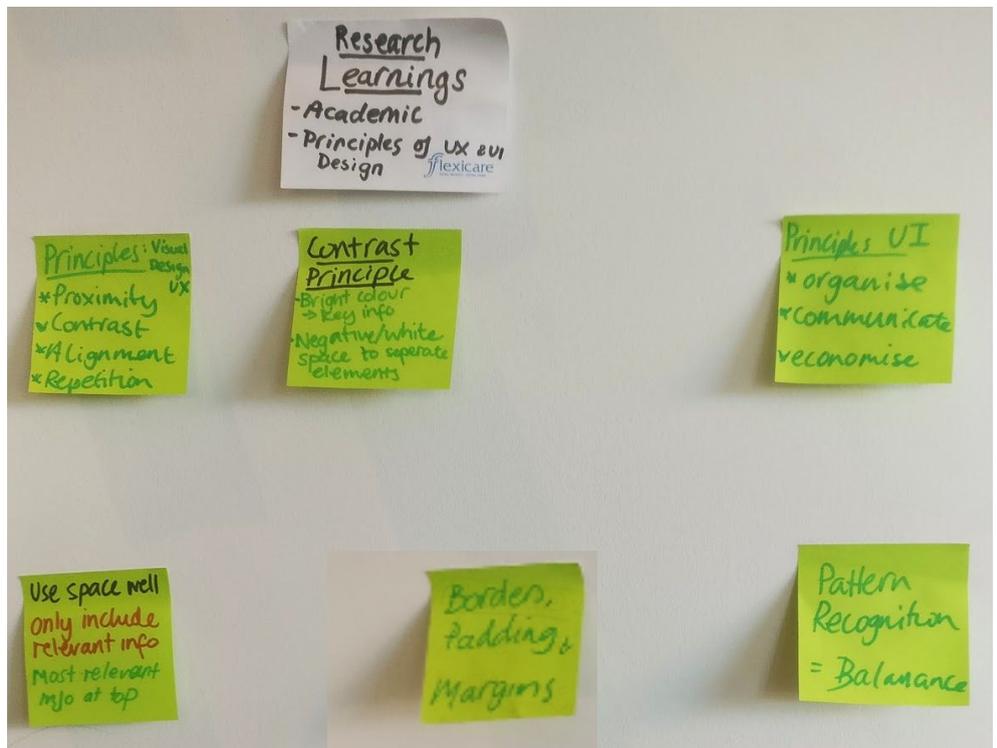
Principles of UI Design Key Insights: Organise, Communicate and Economise.

Colour Scheme:

Key Insight: A neutral colour scheme creates a calm and professional atmosphere.

User Pain Point: EasyJet uses a bright orange colour scheme, which creates a negative emotional response from users. Users interviewed also commented that the highlighted orange colour is confusingly used for their logo and titles as well as interactive elements. This resulted in the user being confused which elements are interactive.

User Profile

Subheading

We grouped together post-its that didn't relate to a specific app page category. These items have a relationship with multiple, or sometimes all the other categories. These are important elements to focus on because they affect most of the app.

We identified the key link between these post-it notes is they all relate to the user. Therefore, we decided to create the subheading 'User Profile'. To organise the post-its further we created the following sub-groups.

Sub-groups:

- User's Priorities

- User Behaviours

- Positive emotions

- Negative emotions

User's Priorities

- Users priorities vary depending on the user and the type of flight.
- Leisure travellers prioritise price.
- Business travellers prioritise time.
- Users prioritise comfort for long flights.

User Behaviours

- Banner Blindness - do not put important information in banners because users mental model is to ignore it
- Utilise users' Pattern Recognition behavior to help achieve balance.
- If the app is redesigned customer retention will increase to 93% (improvement of 26.7%) this would increase the likelihood of future sales.

Positive emotions

These items evoke positive emotions in users and will maximise the user experience. Therefore, we need to ensure we focus on achieving and utilising these key elements for success.

Key positive feedback:

Users surveyed were the most satisfied with the airline app's features, functions and visual design. Therefore, we need to identify how this was achieved and how we can repeat this success. We need to be careful to not change what works well for these elements already.

Key design elements that evoke positive emotions:

- High quality

- Visually appealing

- Modern

- Efficient

- Simple

- Familiar

    ○ This means we should follow user mental models to ease understanding and transition on to the new app.

    ○ We need to create a warm and welcoming environment that connects with users to build brand loyalty and repeat business.

Negative emotions

These design flaws result in a negative emotional response from users.

These negative emotions turn into user pain points and problems.

Negative emotions decrease the user experience.

If a user experiences too many negative emotions and problems then they may leave the app and use a competitor. This will decrease revenue, profits and brand reputation.

Therefore, we need to avoid the errors and fix the problems that result in these negative emotions.

Users surveyed were least satisfied with the layout, structure and navigation. Therefore, we need to focus on improving the structure, layout and navigation.

Pain Points:

- Irrelevant features
- When important information is hidden from view or hard to locate
- Unhelpful or irrelevant links
- Too many options and content disrupts the users flow.
- Wasted space.
- Flashing or moving elements distract users.

Solutions:

- Only include relevant links and content.
- Emphasise key relevant links and information. De-emphasise less relevant links.
- Use space economically to add structure to guide the user on their journey.

Affinity Diagram Session Process

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1. **First, we reviewed all my previous research and analysis**

   a. I sent out my research report a few days prior to the session for participants to read through and make notes.

   b. At the start of the session we reviewed these notes and discussed our findings.
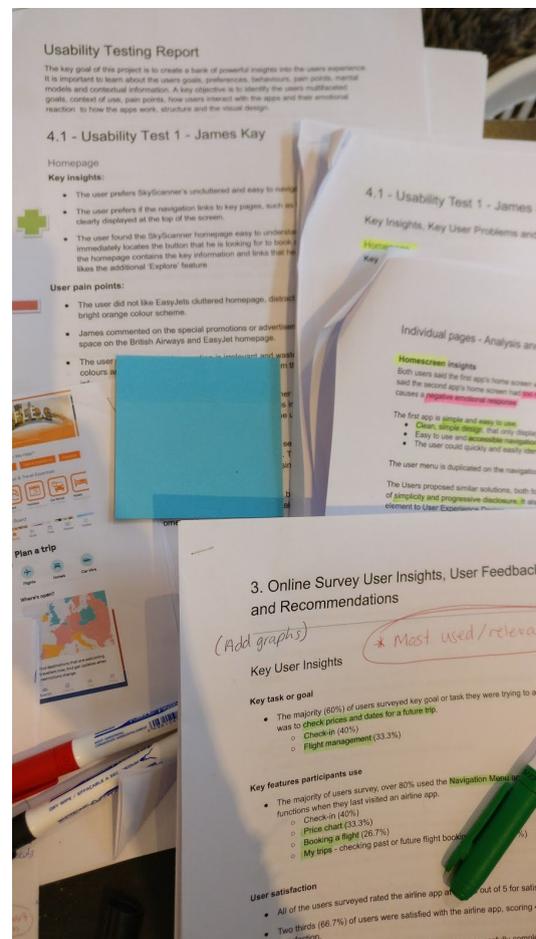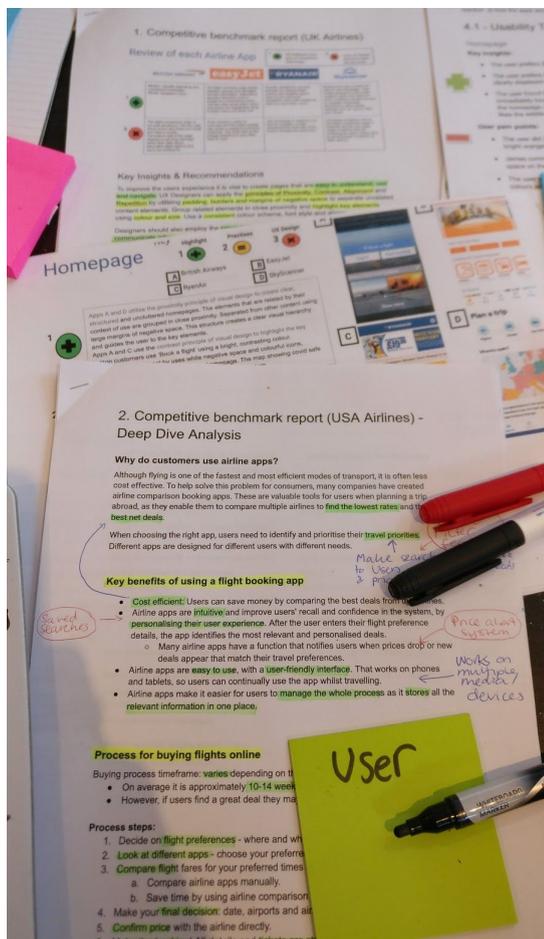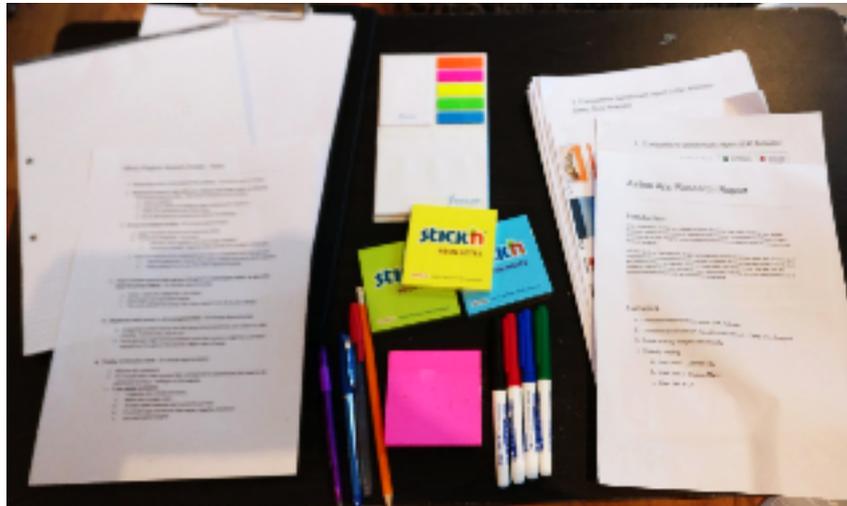
2. We recorded all our observations on individual post-it notes.

a. We individually read through my research in detail and wrote down the key observations, findings and insights on post-it notes.
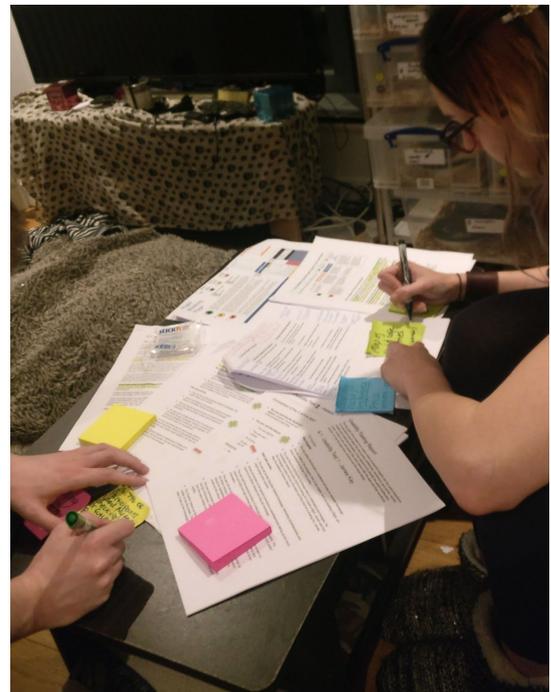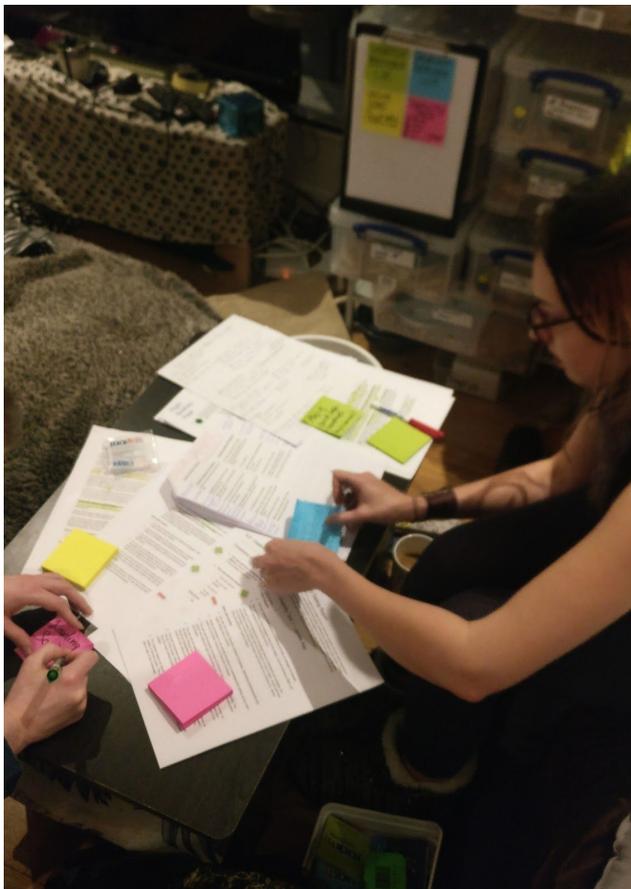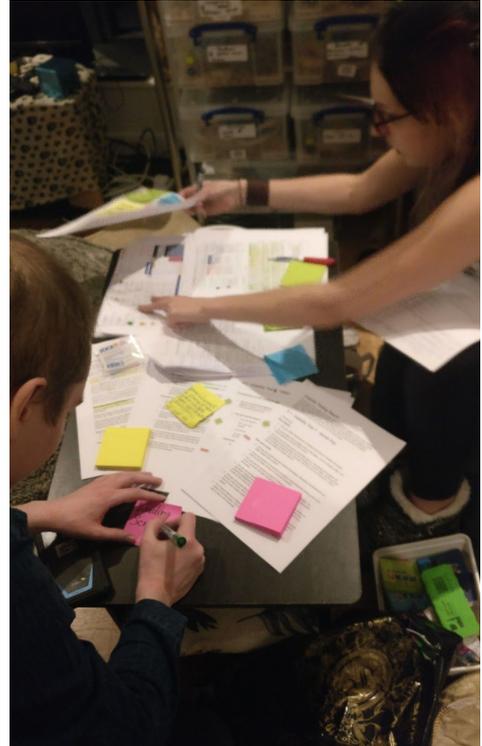
3. We organised the ideas into related groups.

    a. We looked for patterns and notes or observations that are related.

    b. We started placing the post-it notes on the wall, grouping related insights into themes. When adding each post-it note we decided as a group whether it was related to a pre-existing group or should be placed into a new category.

    c. The first post-it was "Home Page". The second post-it said "Navigation Menu" we decided that it is unrelated and should be placed in a separate category group. Next we created 'Flight Booking' and 'Flight Results' categories. The next person fitted some of their post-its into these categories.
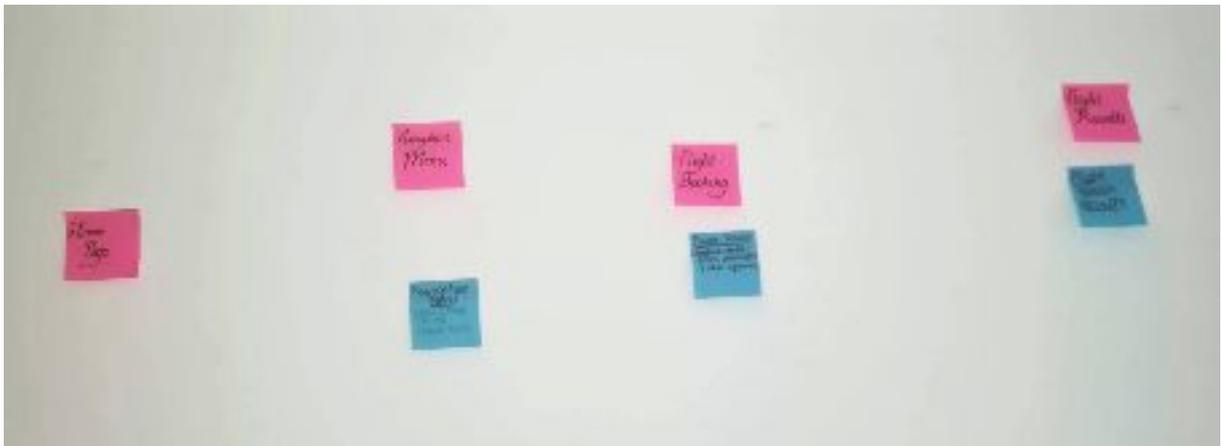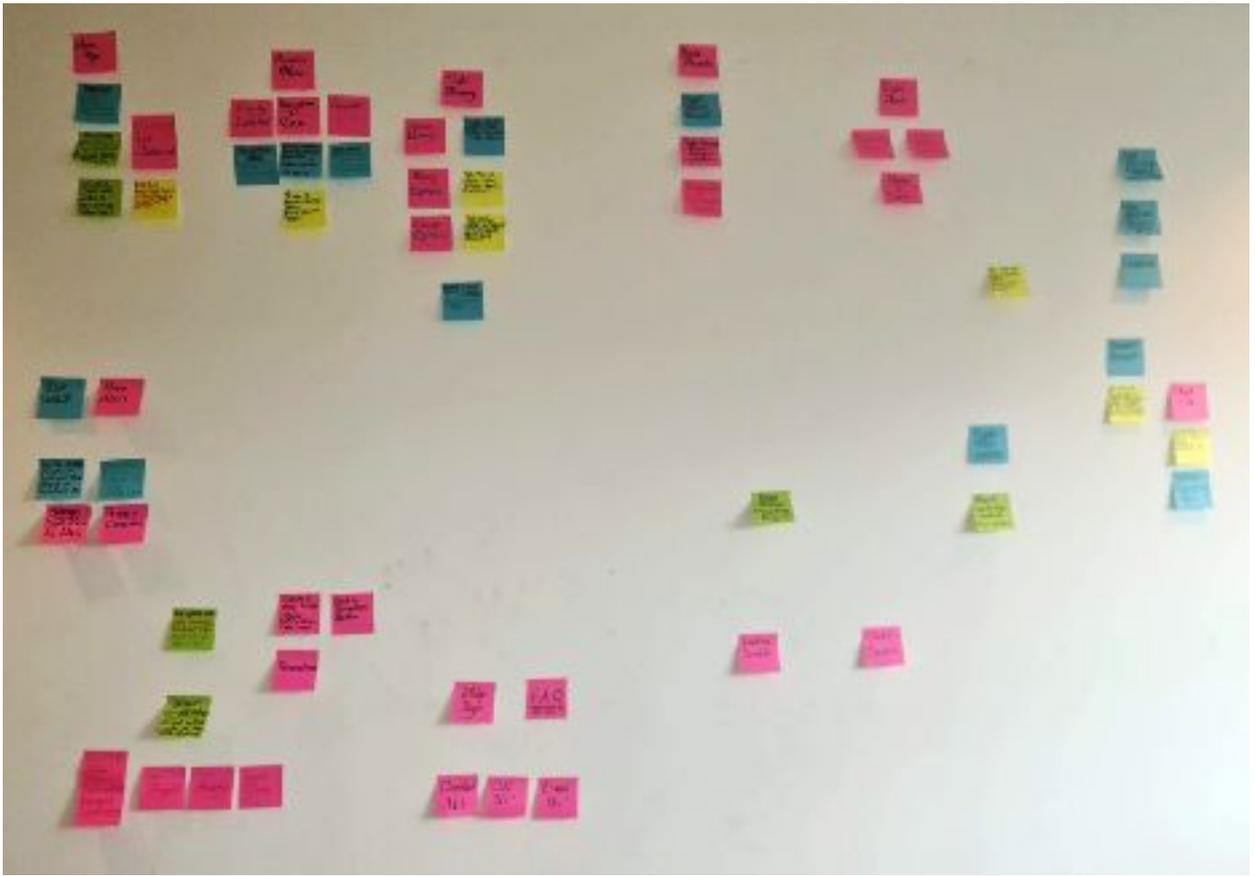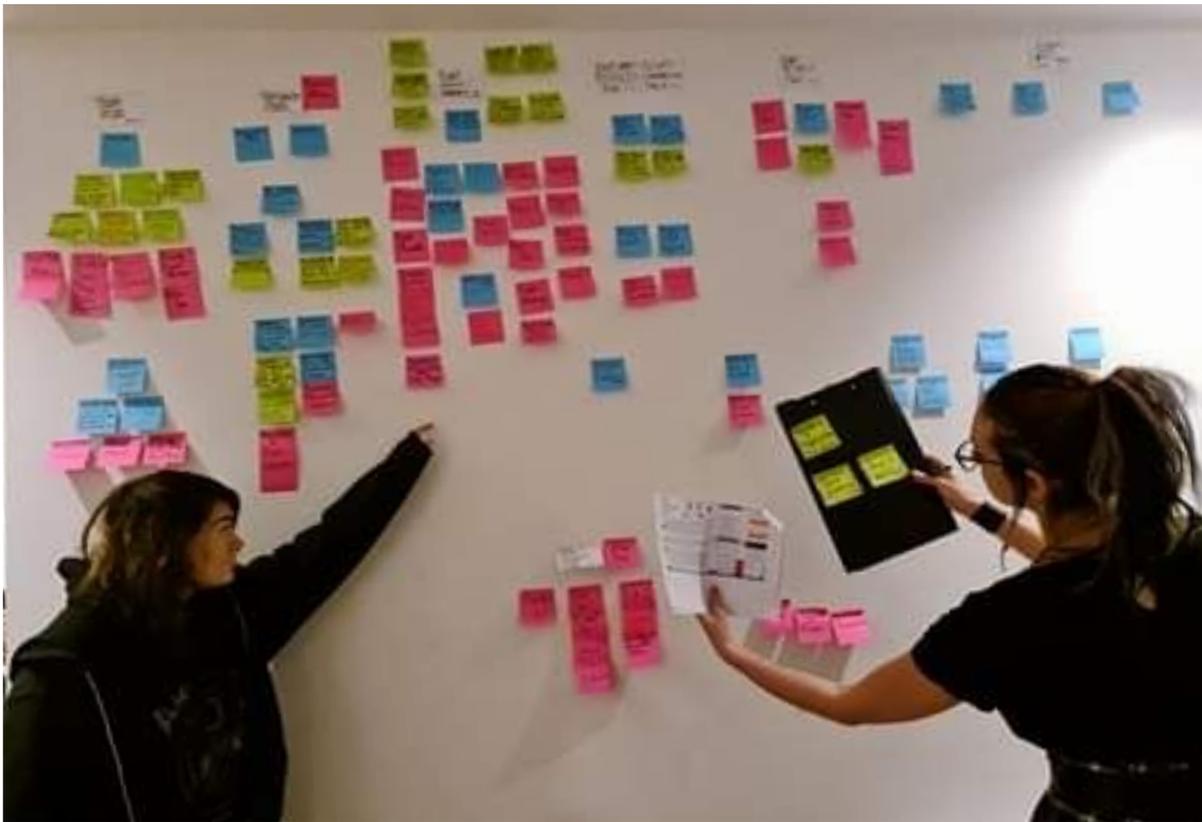
4. We finalised the categories for each pattern or theme

    a. We found that the majority of the post-it notes fitted into categories of airline app pages or screens. We grouped remaining research findings. The other post-its are fitted into sub-groups relating to the users needs, goals, behaviours and emotions.

5. **We assigned a meaningful name to each group to represent what that group means.**

   a. We created header cards for the groups. A header is an idea that captures the essential link among the ideas contained in a group of cards

   b. A header is a word, phrase or sentence that clearly conveys the meaning, even to people who are not on the team.

Affinity Diagram 1   (Below)

Category groupings:

1. Home page

2. Navigation page

3. Flight search page

4. Explore page

5. Results page

6. Itinerary (flight details) page

7. Upgrades sub-group

8. My trips sub-group

9. My account sub-group

10. Travel insights sub-group

11. Help sub-group

12. About page

13. Loading pages

14. Feedback and warning messages

15. Key learnings and principles of UX and UI design

16. User research and insights sub-group

6. We identified the user journey through the pages and sub-groups.

   a. We created connections with other clusters using lines or other devices between individual bits of data or clusters of data.

   b. We identified the sequence of pages that users follow when using an airline app. This can be used to inform the customer journey map.

   c. We recorded the chronological order - assigning number one for the first group encountered by your users on their journey, number two, and so on.

   d. Some groups are encountered more than once - such as My Trips.

   e. Some groups are a constant experience throughout the journey - such as the Navigation Menus.

User Journey Flow Diagram 1
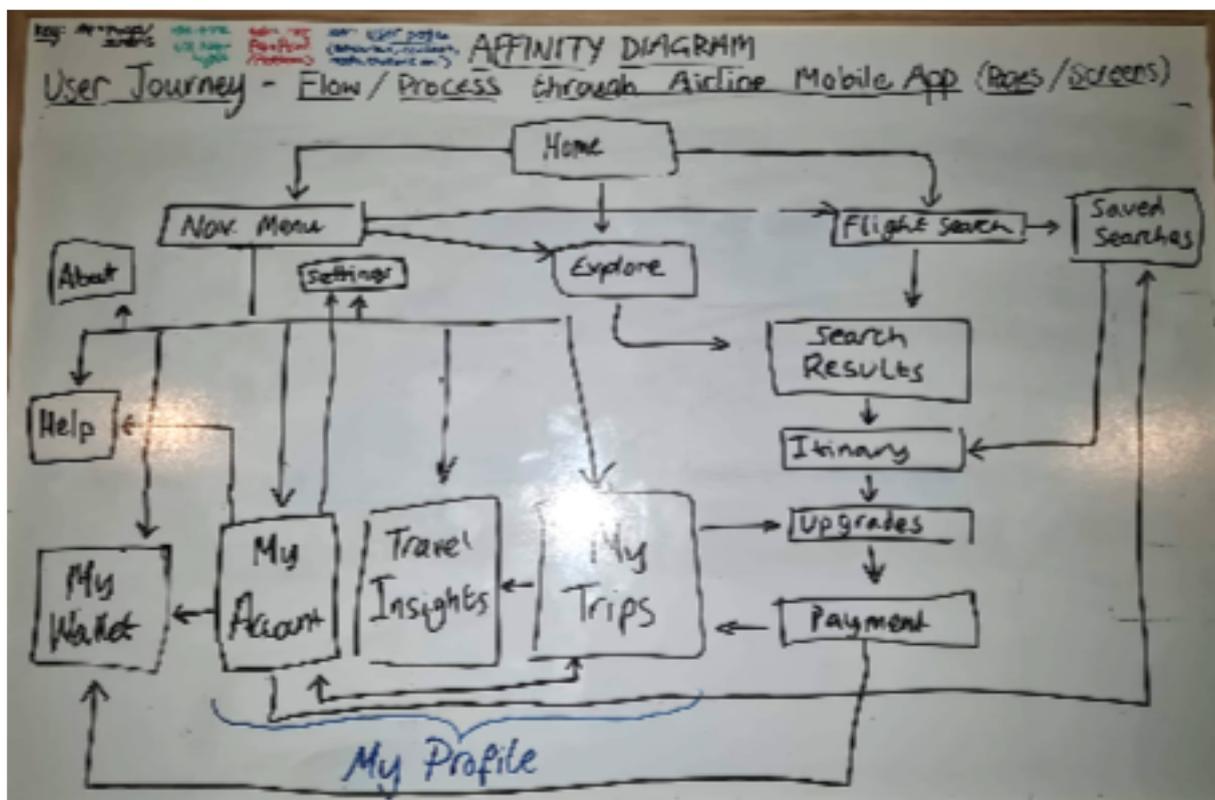
7. We reviewed and clarified the groupings and labels.

The initial Affinity Diagram can be seen in figure '*Affinity Diagram 1'.* We labelled each group with a meaningful name, that described the relationship between the insights on the post-it notes. We then created a User Flow Diagram to show the User's Journey through an Airline App *("User Journey Flow Diagram 1").* As a group we analysed the Affinity Diagram and User Journey Flow Diagram. We decided the user journey could be confusing and inefficient. We decided to improve the users flow by simplifying the process they follow to use the app. We rearranged some of the groupings to improve the user's journey and experience.

8. We documented the finished Affinity Diagram.

Affinity Diagram 2   (Below)

9. We organized and split large groups into subgroups.

   a. We discovered a relationship between 'My Trips' 'My Account' and 'My Wallet' because they all contain personal and important membership account information. We arranged them into columns under a subheading; 'My World'.

   b. Key benefit: Makes management and analysis easier.
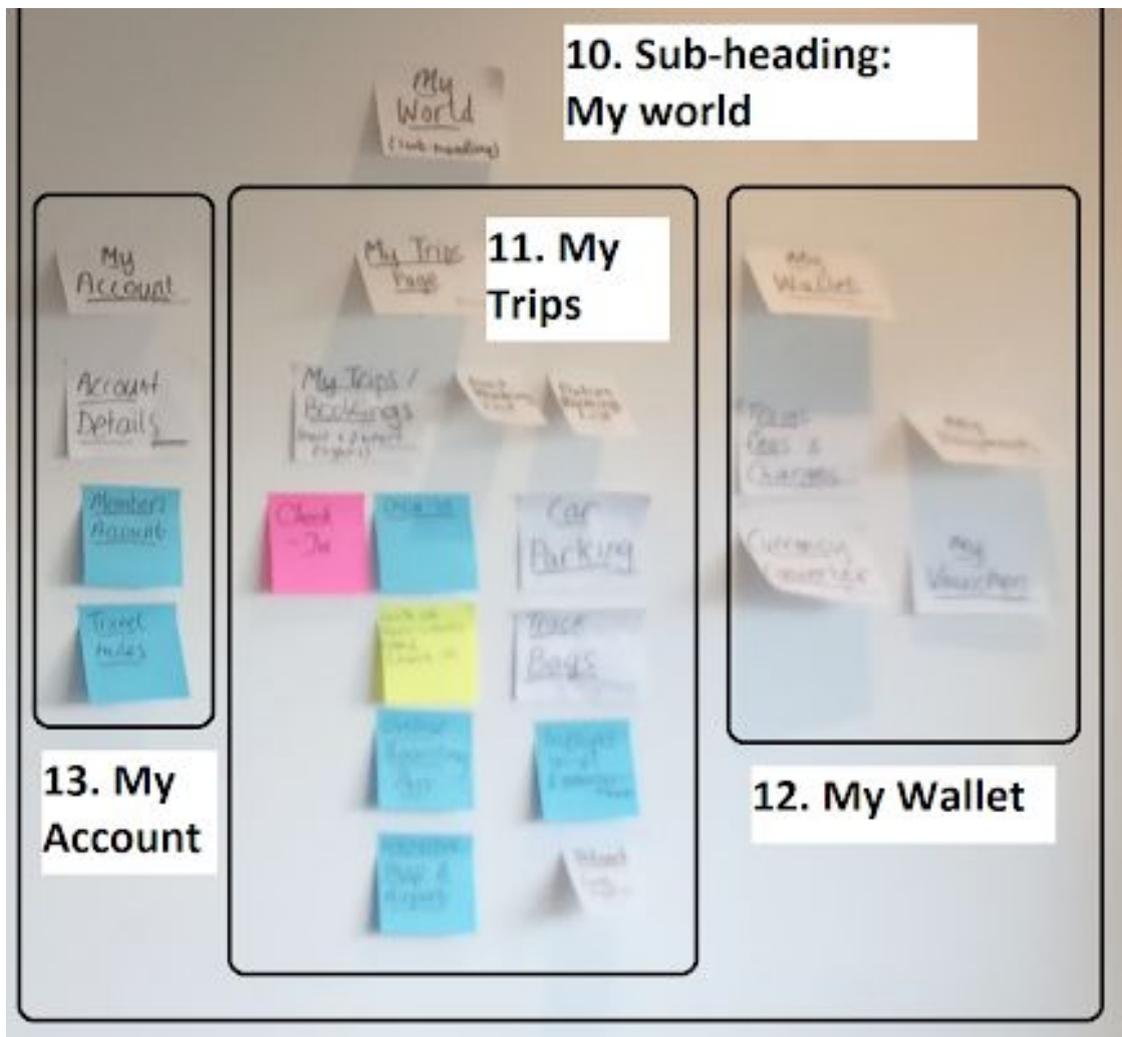
10. **We created a User Flow Diagram to show the User's Journey through an Airline App**

    a. We identified the user journey through the pages and sub-groups.

    b. We ranked the most important clusters over less important clusters.

The most important category groups in order of importance to users are:

1. **Home Page**
   a. 100% of customers will use the Home Page because it is the landing page.

2. **Flight Search**
   a. When surveyed 86.7% of users said they used the Flight Search page when they last visited an airline app.

3. **Navigation Menu**
   a. When surveyed 80% of users said they used the Navigation Menu when they last visited an airline app.

4. **Check-in**
   a. When surveyed 40% of users surveyed said their key goal or task was to check-in to a previously booked flight.

5. **My Profile / My World**
   a. When surveyed 33% of users surveyed said their key goal or task was flight management.

The Home Page is the landing page all users will be taken to when they open the app. On the Home Page there will be a Primary Navigation Bar Menu at the top of the screen with links to the key pages; "Flight Search", "My Profile / My World", "Check-in" and a link to view the full "Secondary Navigation Menu". This Navigation Bar will be available on every screen.

We further simplified and improved the users flow through the Airline App by minimising the range of next stage options on each page to the most relevant pages (see "*User Journey Flow Diagram 3*" below*)*. On each page, users still have access to the Primary Navigation Bar Menu and a dropdown option to view the full Secondary Navigation Menu if needed.

We identified the key User Journeys through the Airline App to complete the main tasks users need to complete.

Key User Journey 1:

- **Goal**: Book a new flight
- **Process**: Home Page - Flight Search - Search Results - Itinerary - Upgrades - Payment - My Trips

Key User Journey 2:

- **Goal**: Check-in to a previously booked flight
- **Process**: Home Page - Check-in - Boarding Pass

User Journey Flow Diagram 2
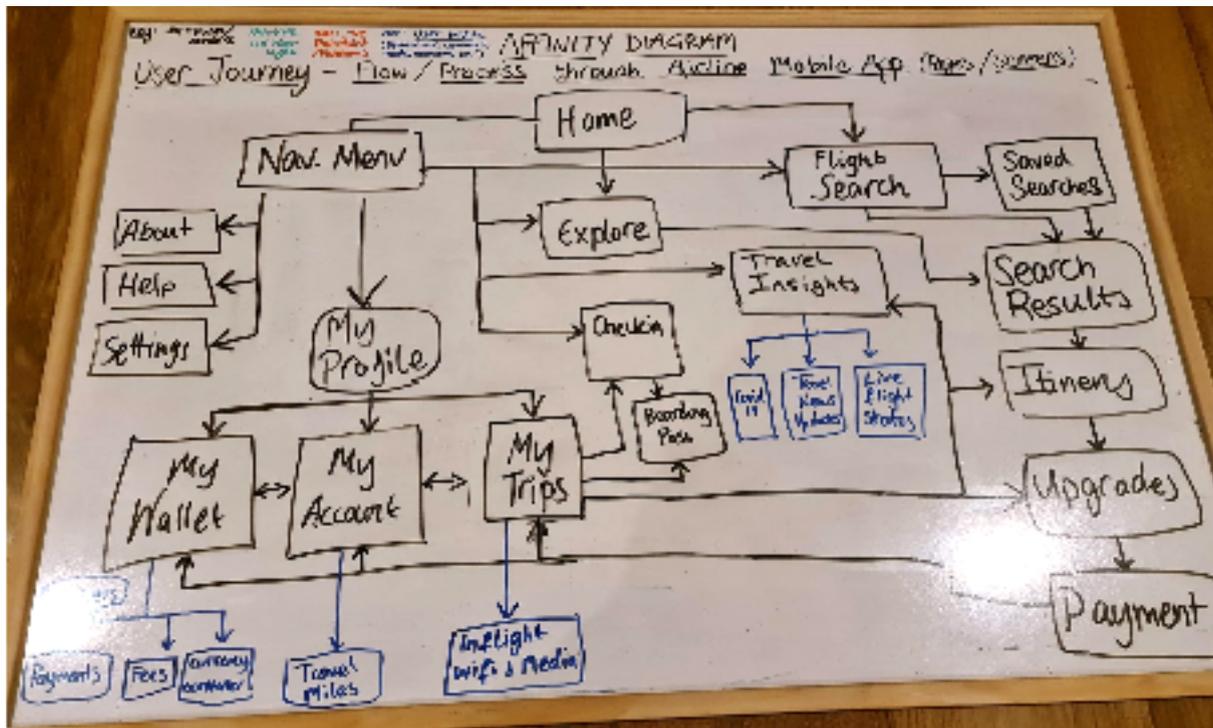

User Journey Flow Diagram 3

Final User Journey Flow Diagram
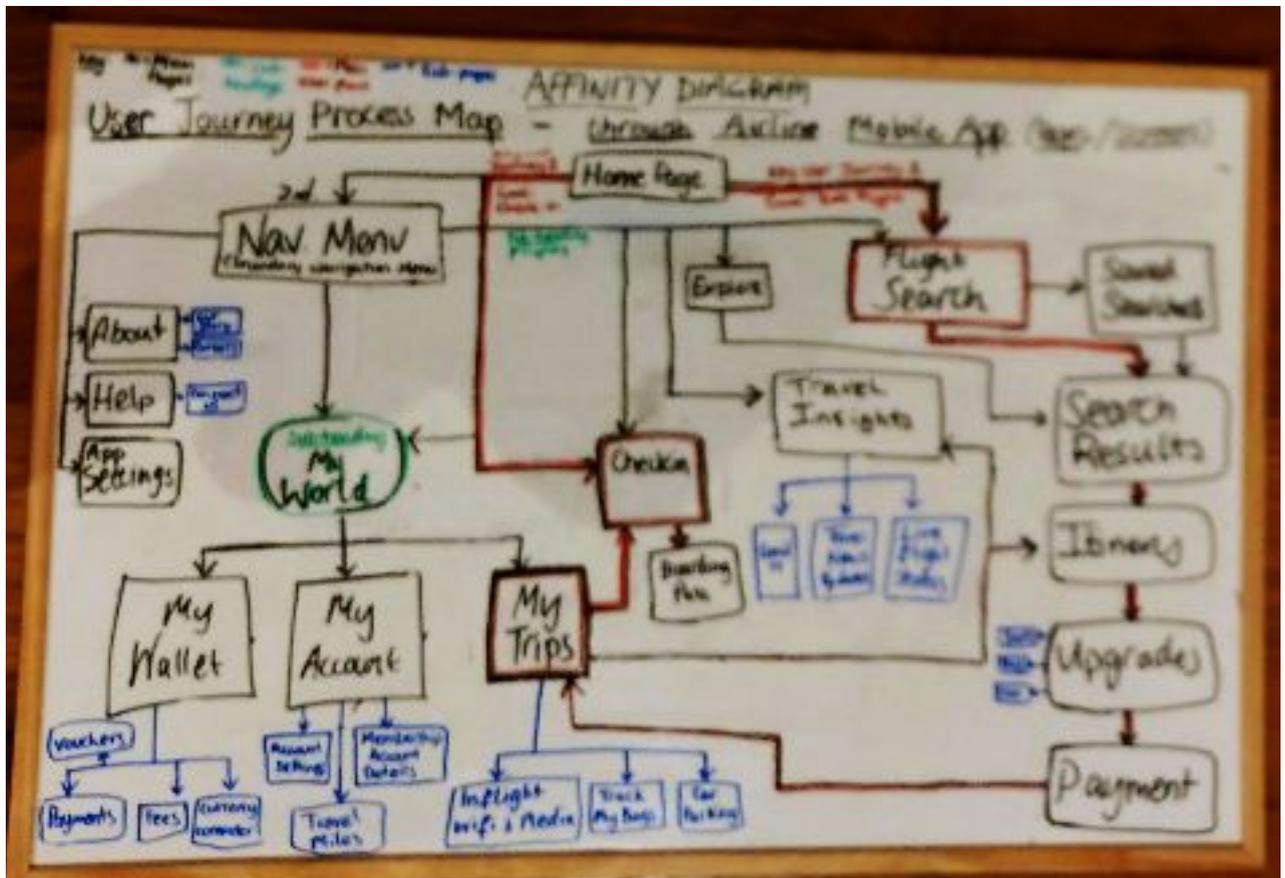
AFFINITY DIAGRAM FLOW CHART FOR AIRLINE MOBILE APPS

Ellen Feuchtwanger
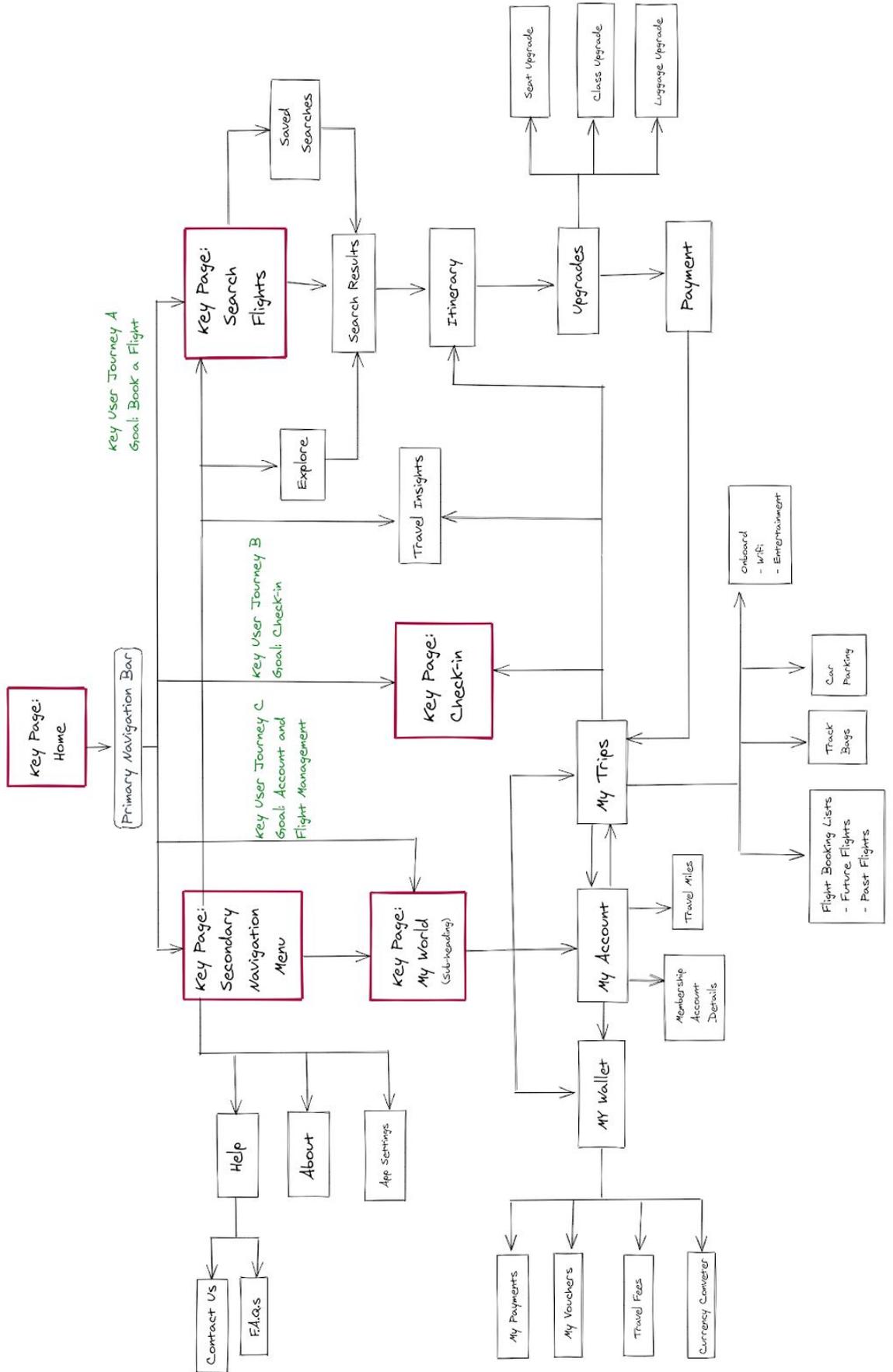
Appendix: Affinity Diagram 1 - Photographs

Key:
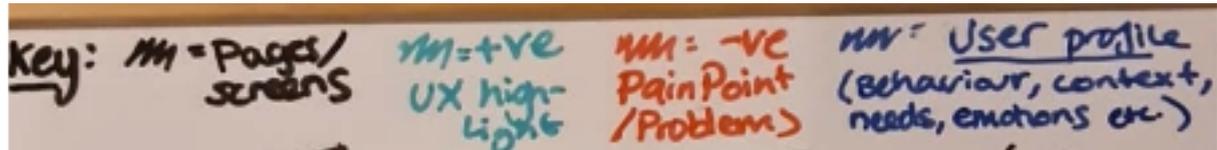
Types of research:
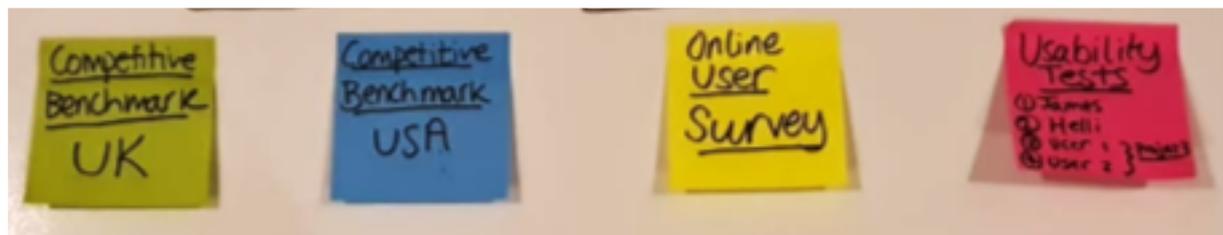

Category groupings:

1. Home page
2. Navigation page
3. Flight search page
4. Explore page
5. Results page
6. Itinerary (flight details) page
7. Upgrades sub-group
8. My trips sub-group
9. My account sub-group
10. Travel insights sub-group
11. Help sub-group
12. About page
13. Loading pages
14. Feedback and warning messages
15. Key learnings and principles of UX and UI design
16. User research and insights sub-group

Affinity Diagram 1:
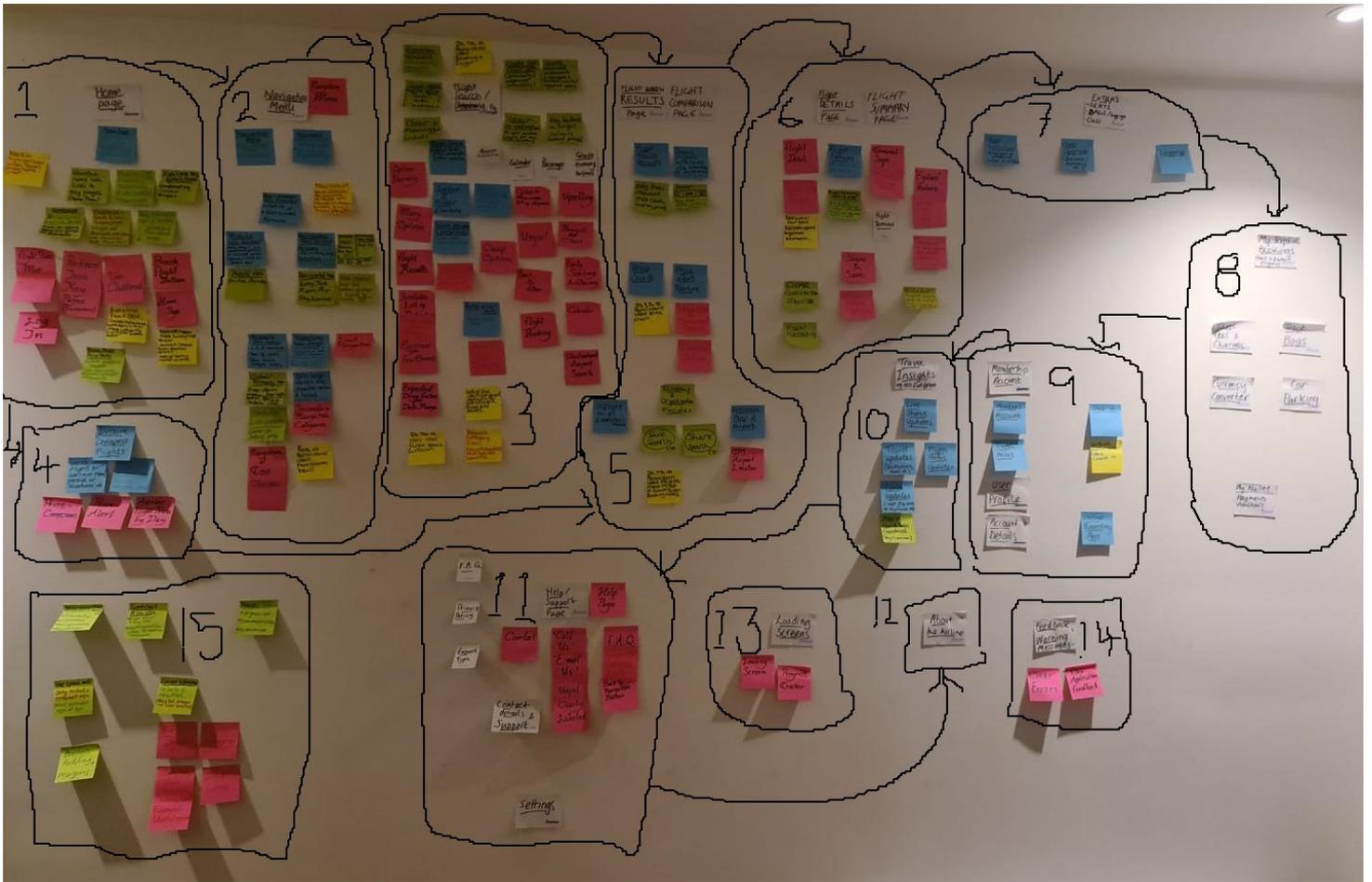

Affinity Diagram 1 - Process and User Journey Flow
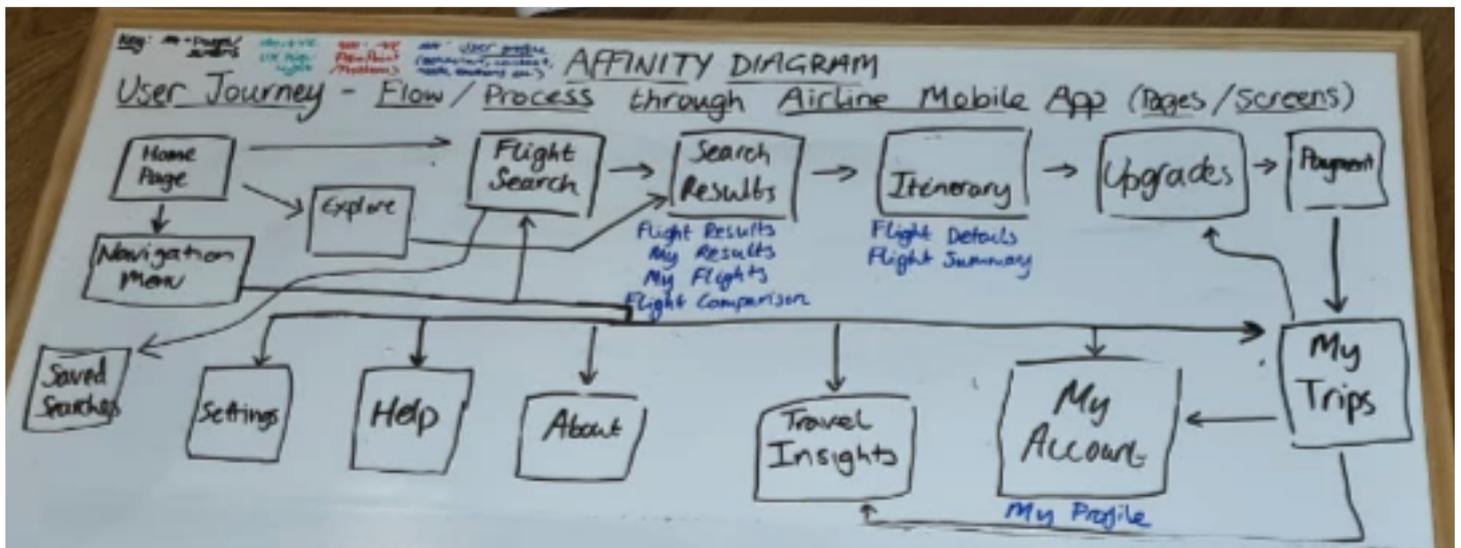
Affinity Diagram 1 - Individual Groupings (Photographs)

1. Home Page

2. Navigation Menu
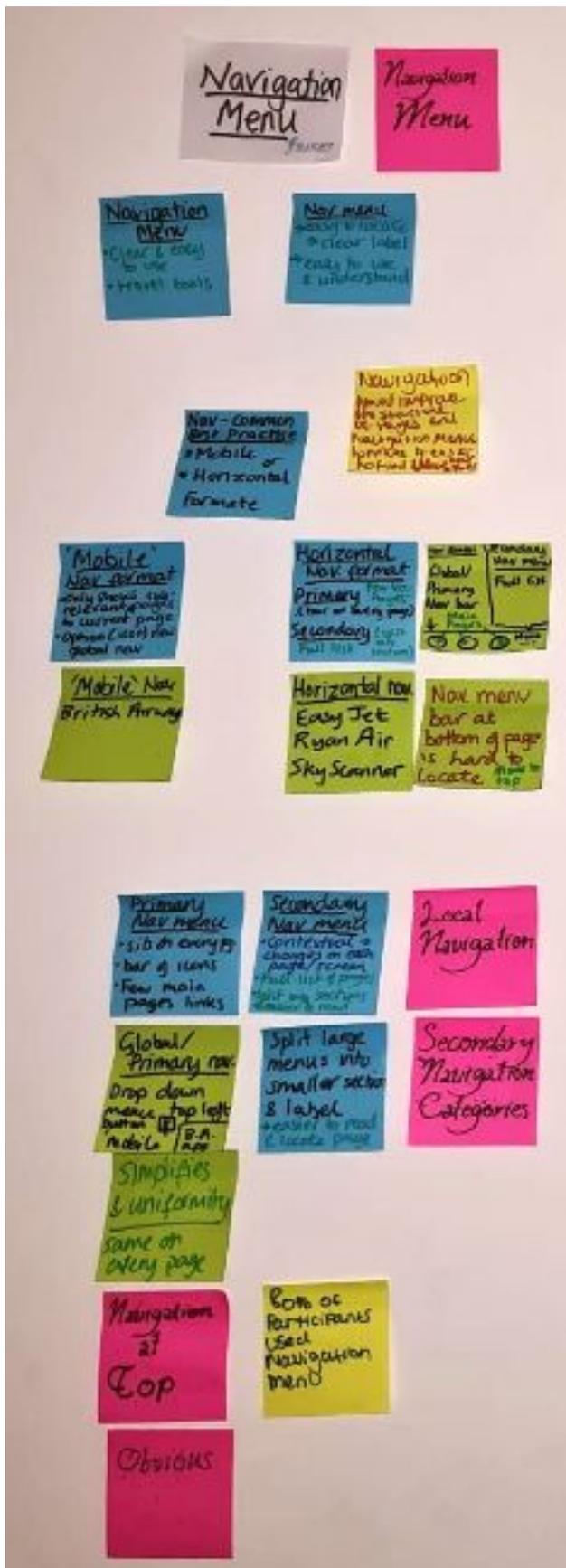
3. Flight Search Page

### 4. Explore (Cheapest Flights) Page

5. Results Page

FLIGHT SEARCH RESULTS Page Feature

FLIGHT COMPARISON PAGE Feature

Grade
economy
business

Upselling

Flight Search Results

Shows flights with lowest CO2 emissions

only show relevant info (date, location, price)

Banner

Price Chart

Price alert Feature

Sorting filtering

33.3% of Participants used price chart

Unavailable & Irrelevant Options

Calendar

Flight Categories
- faster
- Cheaper
- Greener

Limited Options

destination airport search

Economy & Organisation Principles

Inflight Wi-fi & entertainment

Save Search CTA

Share Search CTA

Interactive Map & Airport

GPS Airport Locator

26.7% of Participants used My trips- check ing past or future flight Booking details.

6. Itinerary (Flight Details) Page

7. Sub-category: Upgrades

Pages: Luggage, Seat Selection and Class Upgrades
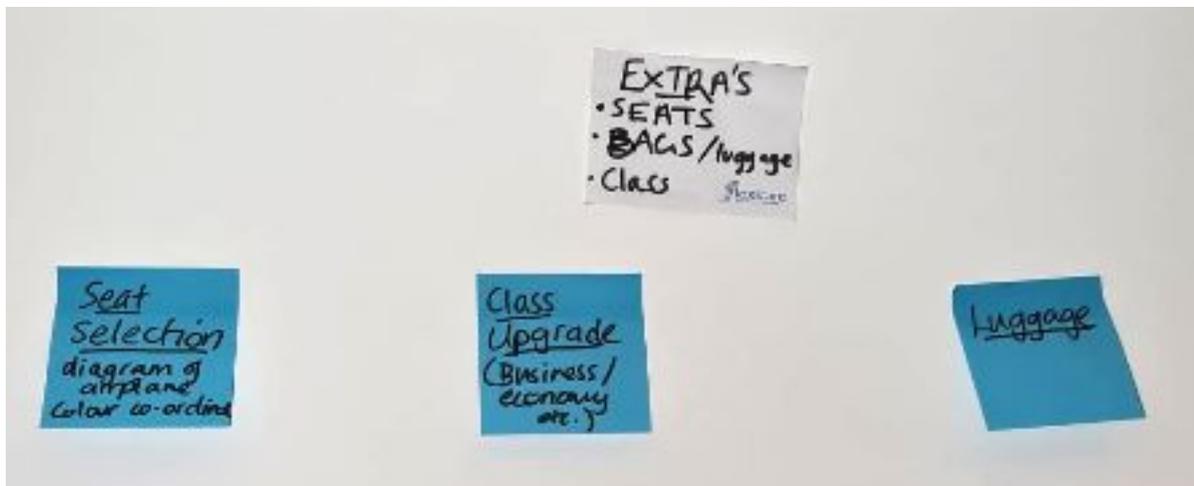
8. Sub-category: My Trips

Pages:
- Track bags
- Car parking
- My wallet
- Travel fees and charges
- Currency Converter
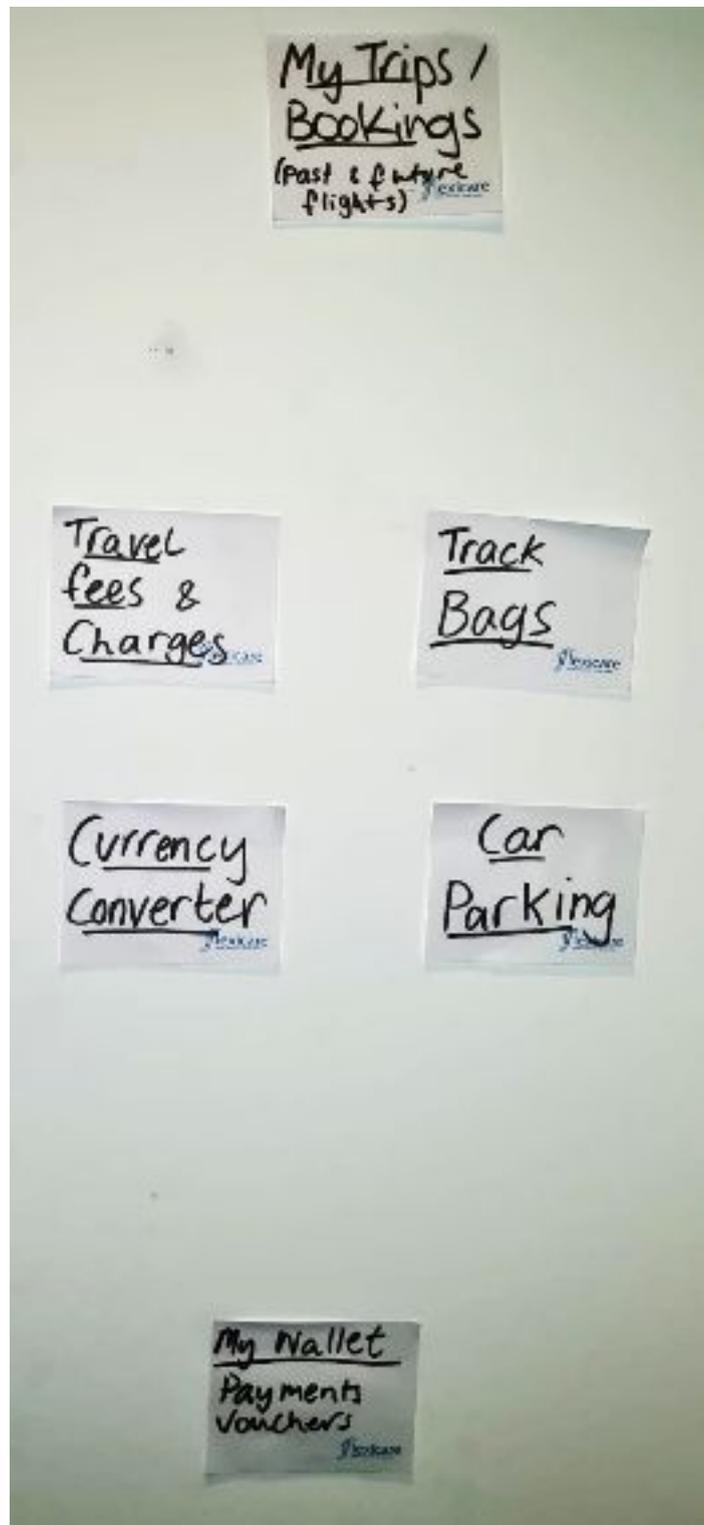
9. **Sub-category: Membership Account**

Pages:
- Account details
- User Profile
- Travel miles
- Check-in
- Online boarding pass

10. Sub-category: Travel Insights

Pages:
- Live flight status updates
- Travel updates
- Covid 19 updates
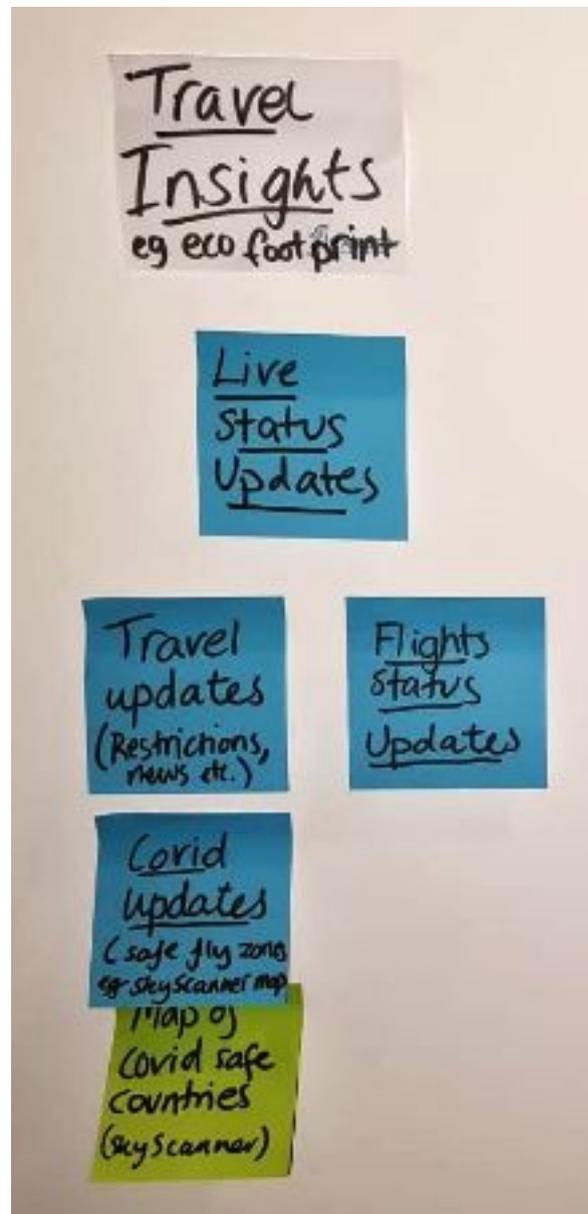
11. Sub-category: Help

Pages:
- Contact us
- F.A.Q.s
- Expert tips
- Settings
- Privacy policy
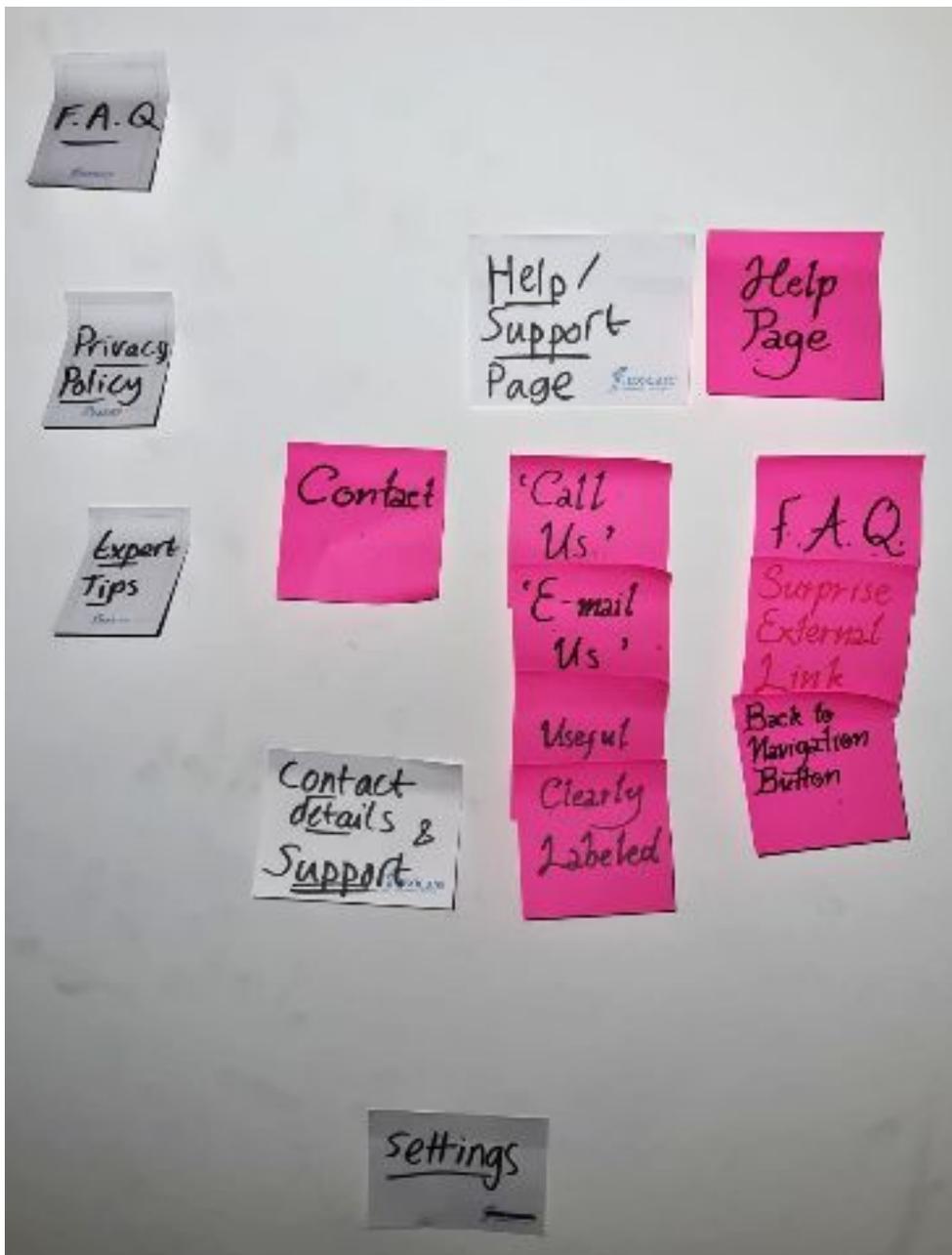
**12. About (the company) page**

13. Loading screens

14. Feedback and warning messages

15. Key learnings and principles of UX and UI design

Principles: Visual Design UX
* Proximity
* Contrast
* Alignment
* Repetition

Contrast Principle
- Bright colour → key info
- Negative/white space to separate elements

Principles UI
* organise
* communicate
* economise

Use space well
only include relevant info
Most relevant info at top

Colour Scheme
calmly & neutral
(EasyJet orange - we user emotions)

Pattern Recognition
= Balance

Borders, padding & Margins

Too Bright

Angry

Highlight Colour Overused
Interactive Elements Undistingui

Looks Cheap

16. Sub-category: User research and insights sub-group

Pages:
- User profile
- User mental models
- Context of use
- Behaviours
- Positive emotions
- Negative emotions - user pain points and problems