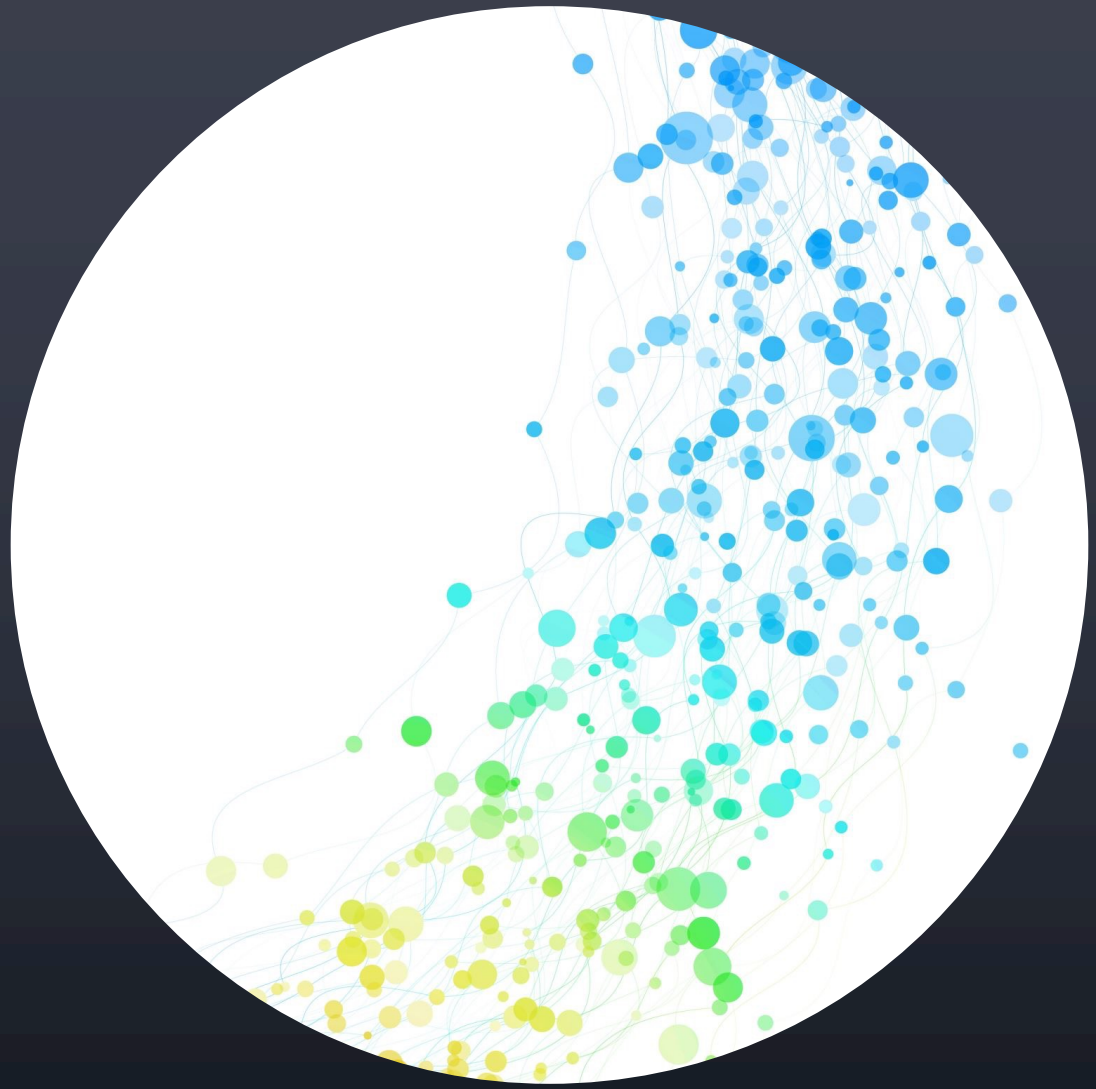
THE SPACEFARING COMPANY

UX Design

Anupam Guleria

This case study is based on a Design challenge generated on Sharpen.design.



Overview

Background

The Spacefaring Company is an aerospace company focused on advancing space exploration and technology. With a focus on innovation and collaboration, the spacefaring company is working to inspire the next generation of space explorers and advance humanity's understanding of the universe.

Objectives

- Design an app that provides users with a comprehensive source of information on space missions(past and in real-time for ongoing missions). The app is designed to be user-friendly and informative, catering to a wide range of users, from space enthusiasts to industry professionals.
- The app will also provide users with an opportunity to connect with other space enthusiasts, share information, and engage in discussions.

Overview(contd.)

My Role

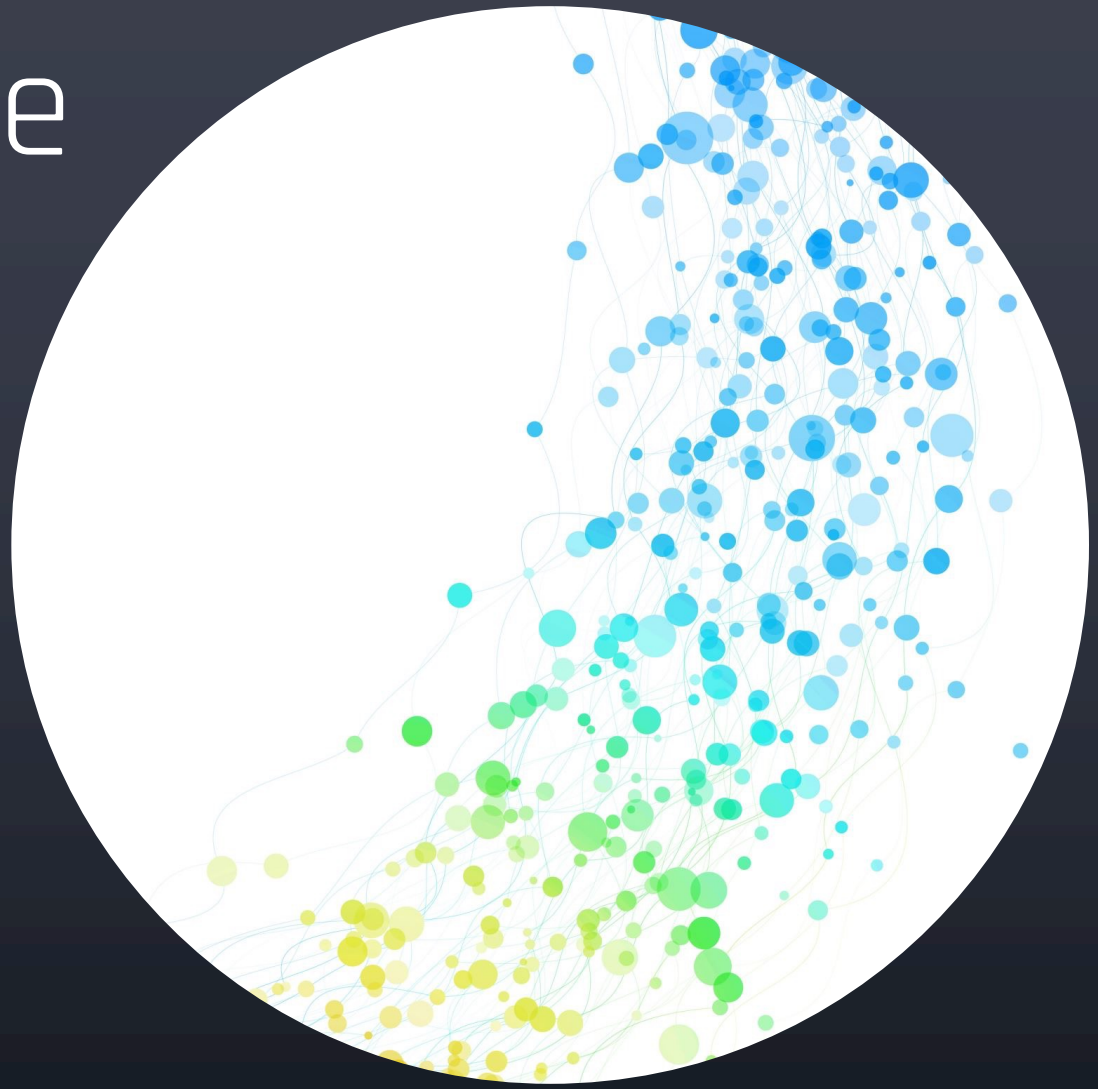
UX Designer. Designing the app for The Spacefaring Company(TSC).

Responsibilities

- Conduct User Research.
- Wireframing.
- Low and high-def prototyping.
- Conduct usability studies.
- Iteration on designs based on usability.
- Accounting for accessibility

Understanding the user

- User Research
- Personas
- Problem Statements
- User Journey Maps



User Research Summary

User research was conducted through survey forms sent over email to gauge the user needs from a space exploration app.

All users find it difficult to locate information about space exploration in a single place and having to go to various sources to get the complete information.

User Research Plan

Validating the personas to ensure accurate representation of target user groups.

Research Questions – What we want to know

- What are the main challenges that users face when trying to learn about space exploration and missions?
- What motivates users to engage with space exploration, and what do they hope to gain from learning about it?
- What are the main sources of information that users currently rely on for space-related news and updates, and how do they feel about the quality and reliability of those sources?
- How do users typically engage with space-related content and media, such as videos, podcasts, and social media?
- What are the specific features and functions that users are looking for in a space exploration app, and what would make them choose one app over another?

Participants

- 5 Participants.
- Residents of Urban and Rural regions.
- Working adults and students.

Methodology

- Questionnaire survey, link sent over e-mail.
- Date: 20th February to 28th February.
- Location: Multiple.

User Research Plan(contd.)

Validating the personas to ensure accurate representation of target user groups.

Questionnaire for users

- Q1: When you try to learn about space exploration and missions, what are the main challenges you face?
- Q2: What motivates you to learn about space exploration and what are you hoping to gain from it?
- Q3: Which sources do you rely on for space-related news and updates, and how do you feel about their quality and reliability?
- Q4: Can you describe how you engage with space-related content and media, such as videos, podcasts, and social media?
- Q5: When considering a space exploration app, what features and functions are important to you, and what would make you choose one app over another?

Common Patterns, Themes & Insights

Research Data Points →

Motivations: Users are motivated to learn about space exploration and missions for various reasons such as personal interest, scientific curiosity, inspiration and educational purposes.

Challenges in learning about space exploration: Users face several challenges when trying to learn about space exploration, such as complex terminology, technical language, lack of access to reliable sources, and difficulty in finding relevant information.

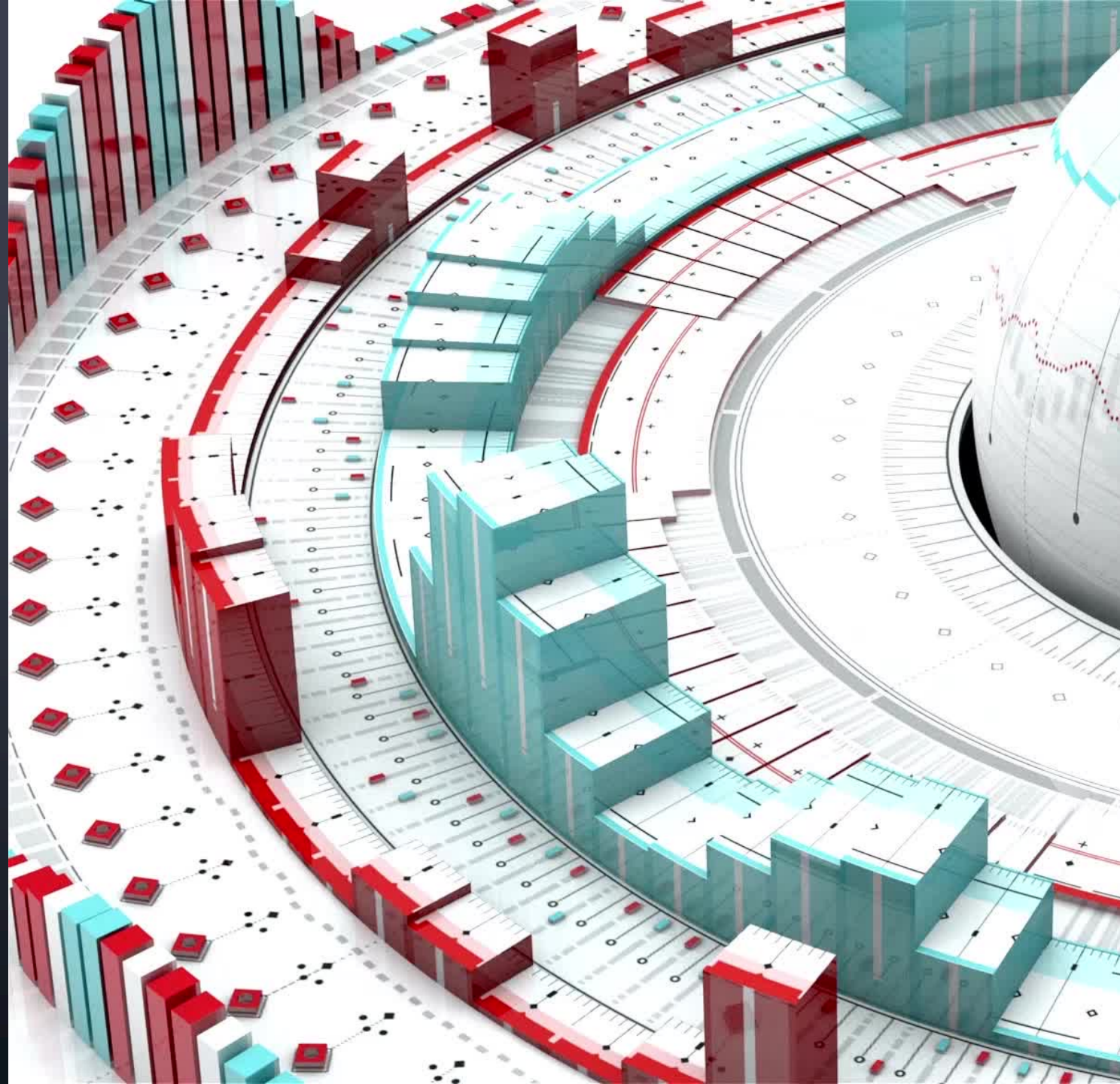
Preferred sources of information: Users rely on a variety of sources for space-related news and updates, such as social media, websites, news outlets, podcasts, and documentaries. However, users are often skeptical of the quality and reliability of the information provided by these sources.

Preferred features in a space exploration app: Users value features such as easy navigation, clear and concise language, engaging visual content, and access to reliable and up-to-date information. They also prefer an app that is user-friendly and allows for customization.

Interest in space exploration groups: A few users showed interest in joining space exploration groups and communities to discuss and learn more about space-related topics with like-minded individuals.

User Research Results

1. Users find it difficult to locate information related to missions in a single place.
2. There is no option to see time-to-launch for planned missions, view live streams, and current status for launched missions.
3. Spacecraft details are not easily locatable.
4. Little information about destination(geography, climate and significance).
5. Scattered resources where users can engage in discussion about space exploration.



Persona

Name: Alex Chen
Age: 34
Occupation: Aerospace engineer

Hometown: Taiwan
Education: PG, Engineering
Family: Married, no children

Alex has always been fascinated by space and exploration. He earned a degree in aerospace engineering and has been working in the field for several years. He is knowledgeable about space technology and has a strong interest in space exploration and research.
Alex is a detail-oriented and analytical person who likes to understand the inner workings of complex systems. He is also curious and enjoys learning about new technologies and scientific discoveries.

Tech Usage: Alex is comfortable using technology and is familiar with different software and tools used in the aerospace industry. He uses his smartphone and laptop frequently for work and personal use.

Goals: Alex wants to stay up to date on the latest space missions and discoveries. He wants to be able to follow the progress of different missions and learn about the scientific objectives of each mission.

Frustrations: Alex finds it difficult to keep up with all the different space missions and their objectives. He also finds it frustrating when information about missions is scattered across different websites and sources.

Persona

Name: Maria Rodriguez
Age: 26
Occupation: Marketing Manager

Hometown: Mumbai, India
Education: MBA
Family: Single

Maria has always been fascinated by space, science fiction, and astronomy. She took some astronomy classes in college but pursued a career in marketing after graduation. She stays up-to-date with space news and missions through podcasts, documentaries, and social media.
Maria is creative, curious, and enthusiastic. She enjoys learning about new topics and has a talent for communicating complex ideas in simple ways. She is also tech-savvy and likes to use technology to stay informed and connected.

Tech Usage: Maria uses her smartphone and laptop regularly for work and personal use. She is active on social media and likes to use technology to stay informed about current events and trends.

Goals: Maria wants to learn more about current space missions and the science behind them. She also wants to follow the progress of upcoming launches and learn about how space technology impacts society.

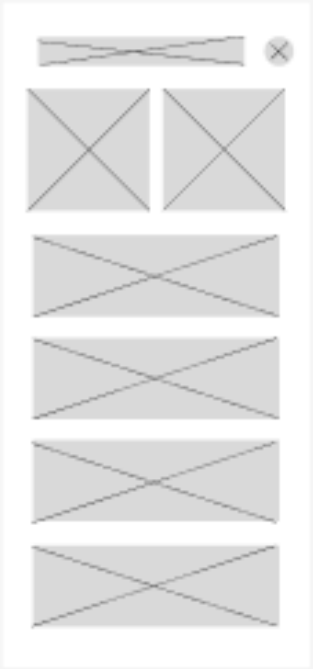
Frustrations: Maria finds it difficult to find reliable information about space missions that is presented in a way that is easy to understand. She also finds it hard to keep up with the latest launches and mission updates since they are scattered across different sources.

Design & Usability

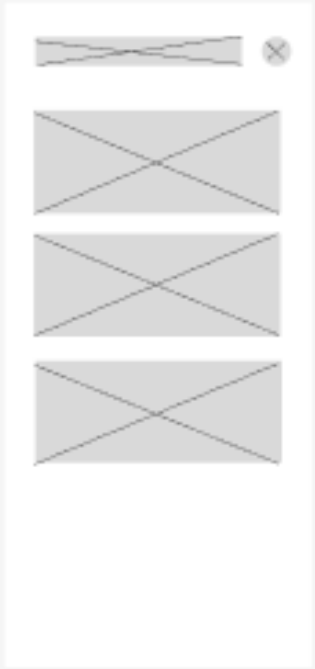
- Information Architecture
- Digital Wireframes
- Lo-Fidelity Prototypes
- Usability Studies

Information Architecture

Home



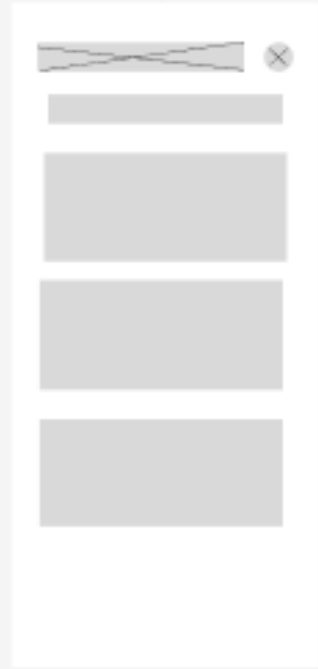
Missions



Mission Screen

Discover

Community



About Us

What we do

Launch Facilities

Spacecraft

History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Usability Study Parameters

Parameters: What needs to be tested

- Task Completion rate.
- Ease of Navigation.
- Ease of Use.
- Layout and Design.

Methodology: How is it to be tested

- Live during video call.
- Screenshare during study.
- Date: 2nd March to 10th March.
- Location: Multiple.

Participants: The End users

- 5 Participants.
- Residents of Urban and Rural regions.
- Varying level of experience and familiarity with space exploration apps.
- Working adults and students.
- Think aloud protocol.

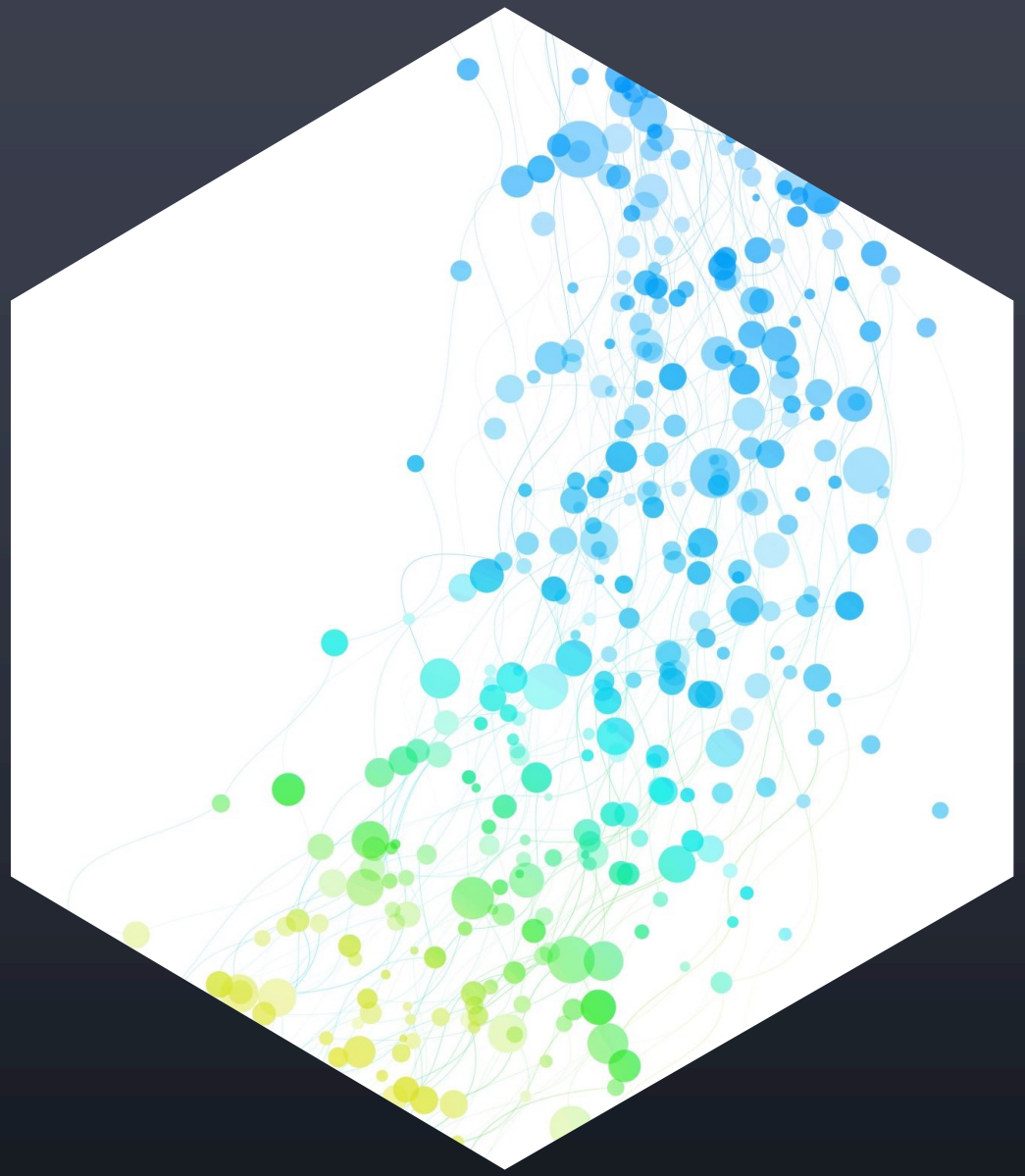
Usability Study Findings

- ✓ **Task Completion**: On average, all participants were able to complete tasks assigned to them. The tasks that were found to be the most challenging was the **lack of the search function**.
- ✓ **Ease of Navigation**: Participants found the navigation of the app to be intuitive and easy to use.
- ✓ **Layout and Design**: The layout and design of the app were found to be visually appealing and easy to understand. However, some participants expressed that **the font size could be larger**.
- ✓ **Ease of use**: Participants found the app to be easy to learn and use, with minimal instruction needed.

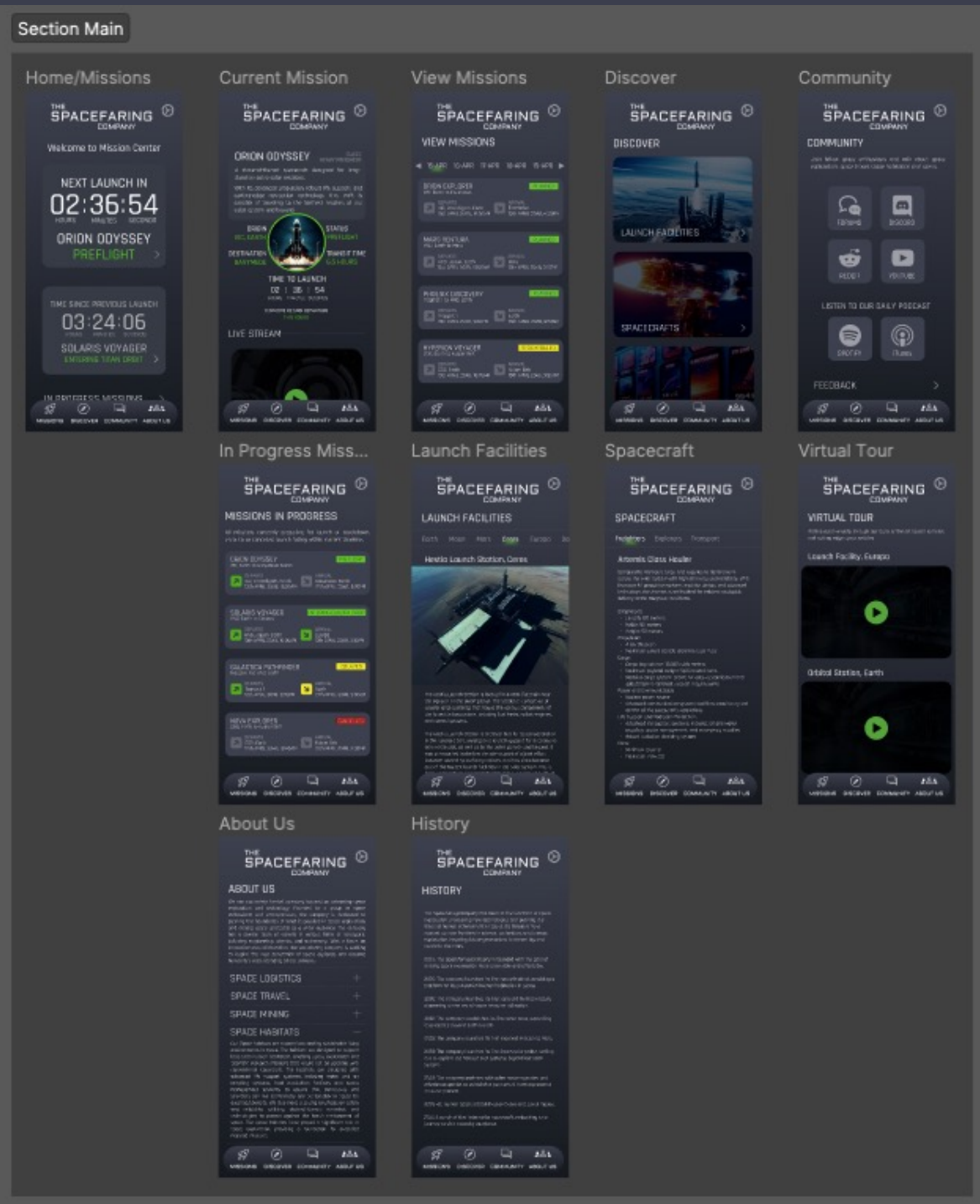
Overall, the Spacefaring app was found to be user-friendly and intuitive. However, there were some areas that could be improved upon, such as the search function and font size.

Refining the Design

- Mockups
- High-Fidelity Prototypes
- Accessibility
- Responsive Design



Mockups



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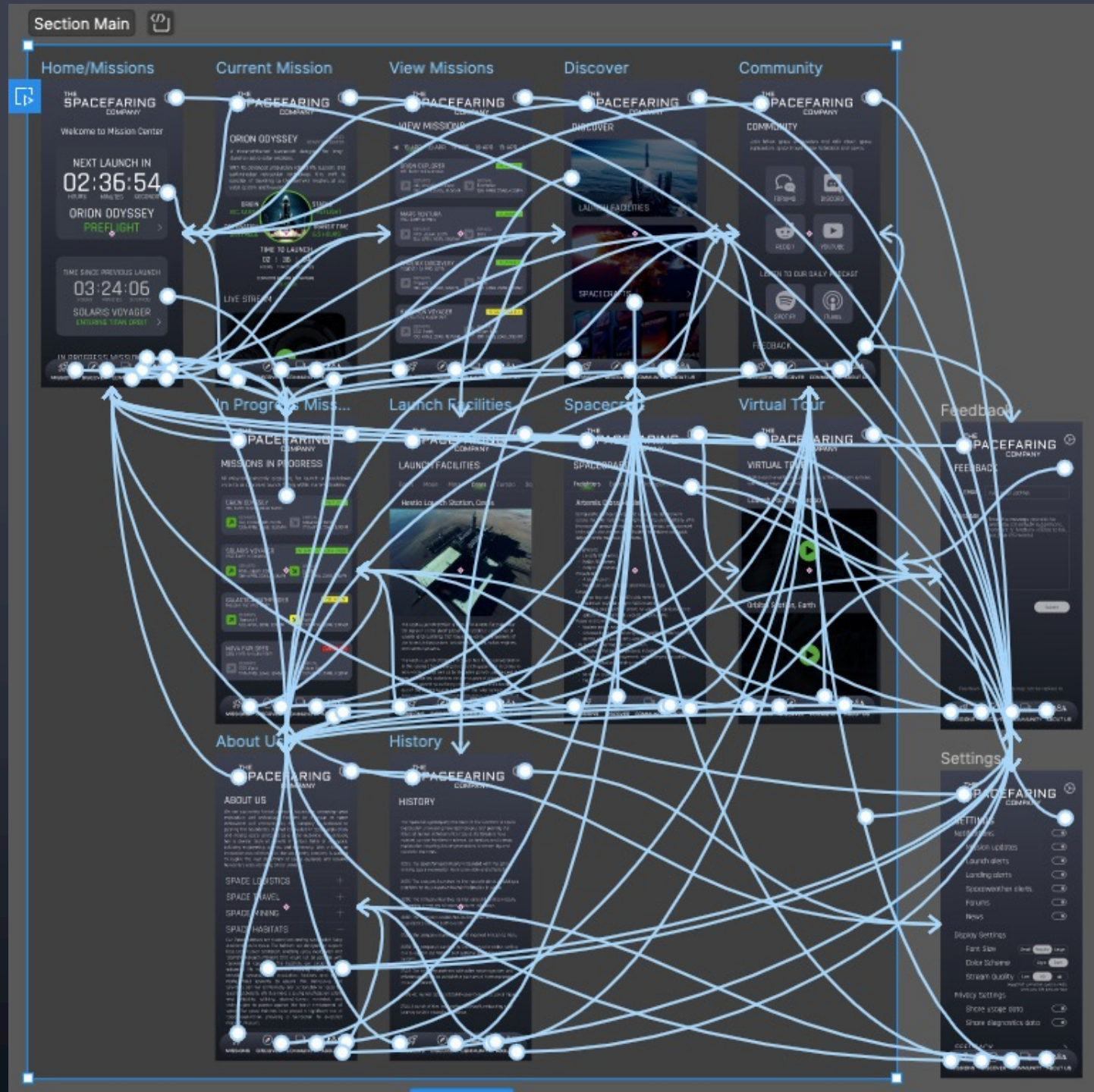
Hi-Fidelity Prototype

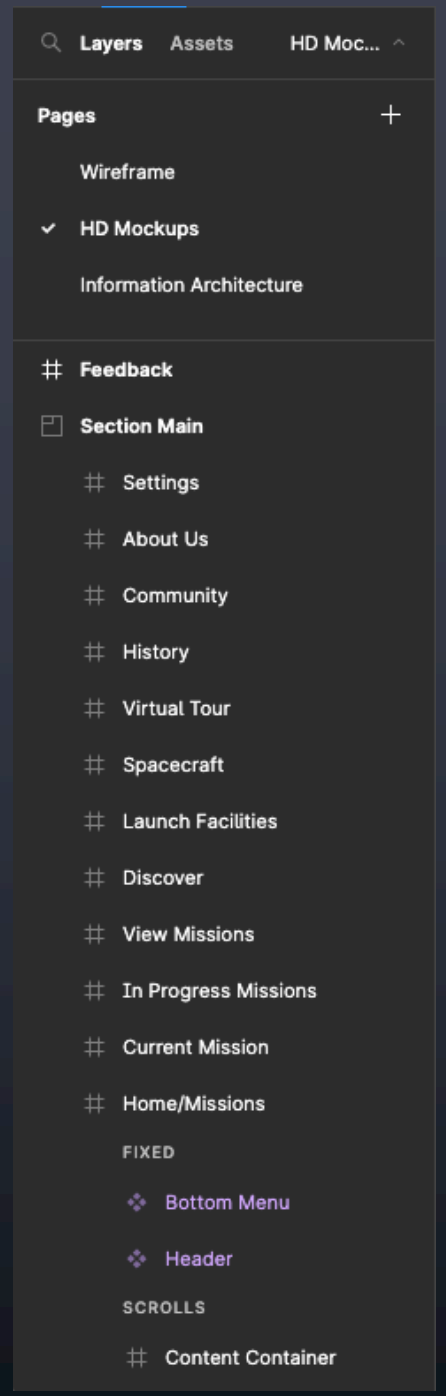
View Prototype

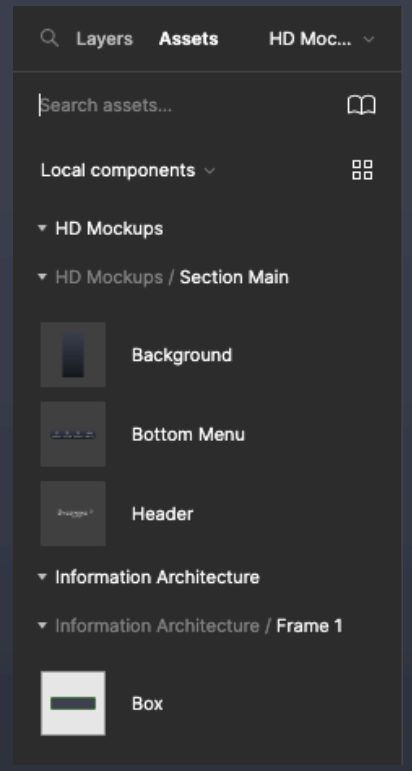


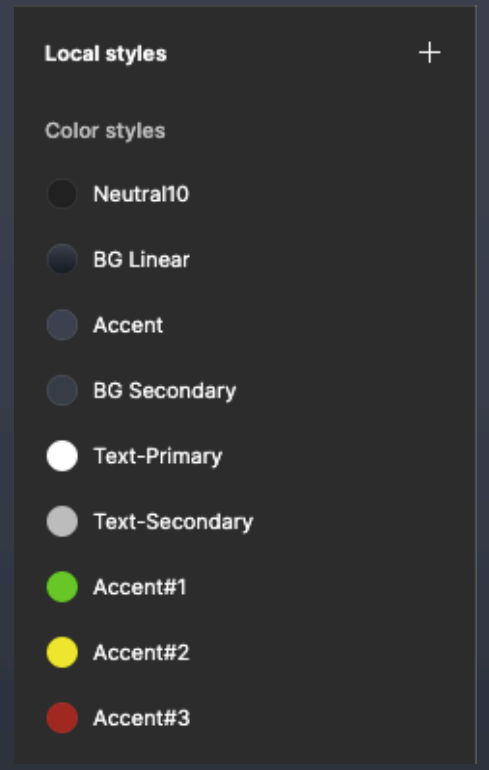
Anupam Guleria

www.anupamguleria.com

Figma Layers, Assets & Styles







Accessibility

- Recommended WCAG AA Contrast Ratio: 4.5:1

Lightest Foreground	#FFFFFF		Darkest Foreground	#BCBCBC	
Background	#3D404E		Background	#373C46	
Contrast Ratio	10.28:1		Contrast Ratio	5.82:1	

- Minimum Font size: 14px.
- Links are easy to differentiate from text.
- Animations to indicate screen transitions.
- Avoided usage of color alone to convey content.
- Forms controls include descriptive labels & instructions.

Takeaways & Way forward

- Takeaways
- Next Steps

Takeaways

Category	Key Findings
Navigation	Users found the app navigation to be intuitive and easy to use. The placement of UI Elements and icons was clear and consistent, making it easy for users to find what they were looking for.
Visual Design	Users appreciated the modern visual design of the app. The color scheme was well-received, and users felt that the overall look and feel of the app was professional.
Content	Users found the content to be informative and engaging. However, some users felt that there was too much information presented at once and suggested breaking it up into smaller chunks or using interactive elements to make it more engaging.
Performance	Users were generally satisfied with the app's performance.
Features	Users appreciated the app's features, particularly the ability to track missions and view real-time data. However, some users felt that there could be more features, such as interactive simulations or educational resources.

Next Steps

Category	Recommendations
Navigation	Consider conducting further testing with a larger sample size to ensure that navigation is truly intuitive and easy to use.
Visual Design	Explore incorporating features such as “color schemes” or light mode depending on the device setting.
Content	Work on reorganizing the content and presenting it in a more digestible format. This could include breaking up the information into smaller chunks or incorporating interactive elements to make it more engaging.
Performance	Consider conducting additional performance testing from global locations to ensure that the app is functioning optimally, specially for live streams.
Features	Explore the possibility of incorporating more features, such as interactive simulations or educational resources, based on user feedback. Conduct user testing to ensure that any new features are intuitive and add value to the app.

Thank You!

Get in Touch for a Better User Experience

- ✓ Increase App/website usability.
- ✓ Increase User Engagement.
- ✓ Improve Conversions(Sign-ups, Checkout).
- ✓ Identify bottlenecks in processes.
- ✓ Drive Business success.

Expertise

- ✓ 13+ years in Customer Experience Research.
- ✓ 7+ years eCommerce UX & operations experience.

Contact me today to discuss how we can improve your app's user experience.

hi@anupamguleria.com