Case study:
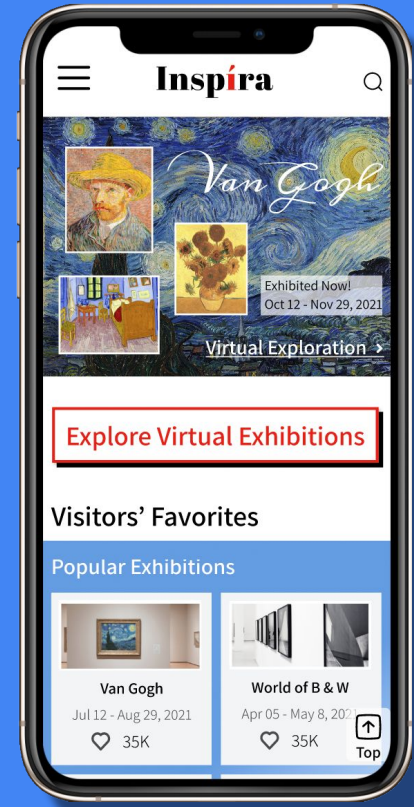# Virtual Art Gallery Tour App

Hyun Dasdan

Project overview

The product:

Inspíra is an art gallery where various groups of visitors find inspirational artworks. Now the gallery wants to extend their exhibitions to the virtual world, providing its online visitors realistic experiences of a gallery visits.

Project duration:

Mar 2021 - Nov 2021

Project overview

The problem:

People or students with busy schedules can't manage to physically go to a gallery for inspiration and need an app that can provide a realistic experiences for art exhibitions.

The goal:

Inspira Gallery Tour App will let users virtually experience a convenient yet inspiring gallery tour by empowering the users with interactive features for the realistic views of the works of art.

Google

Project overview

My role:

UX designer

Responsibilities:

- Conducting interviews
- Generating Personas
- Conducting for a usability study
- Wireframing
- Low- & high-fidelity prototyping
- Accounting for accessibility
- Iterating on designs

Google

Understanding the user

- User research
- Personas
- Problem statements
- User journey maps

Google

User research: summary

I conducted user interviews and reflected what my target users say, think, do, and feel on their empathy maps. A primary user group identified through my user research was adults with busy work / school schedules who can't find enough time or energy to physically visit art galleries for inspirational experiences.

The user research confirmed the initial assumption about user's preference of having as realistic experiences as they would have at a physical location visit. However, it was surprising to find out that users were also interested in sharing the experience with people they know. These two aspects--getting a realistic gallery tour experience and sharing the inspiration--became the main goal of the designs.

Google

User research: pain points

1

Time

Busy working adults / students can't find time to visit an art gallery.
The app will help users to explore the gallery at their convenience.

2

Location

After catching up with their busy schedules, users don't have much energy to go visit and explore the physical location of a gallery.
This app can bring the gallery to the users at any time and any place.

3

Realistic Experience

Some of users are skeptical about the virtual experience of the gallery tour.
The app will provide different ways of exploring exhibitions where users can have 3D feelings out of a 2D screen.

4

Sharing Inspiration

Users think they wouldn't be able to share the inspiration they get from the gallery tour with their peers while using a virtual tour app.
This app will have a plenty of points where users can share what they find with their peers.

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Persona: **Name**

Problem statement:

Laura is a busy entry-level visual designer at an ads company who needs an app to help them realistically explore inspirational artworks because they don't have much time and energy left to physically visit galleries after catching up with their busy work schedule.

"I love to explore and find new inspirational artwork with my friends. It's sad that I can't find enough time and energy to do it often."

Goals

- To find inspirational artwork
- To connect with people and have an active social life
- To find enjoyable activities that doesn't cost much time, money, and effort

Frustrations

- "Sometimes I don't have much energy left to get out and enjoy my life after catching up with heavy workload and frequent deadlines."
- "You can't get as lively interactions and feelings in online activities."

Laura Jin

Age:	23
Education:	BA in Visual Art
Hometown:	San Francisco, CA
Family:	Lives with a roommate
Occupation:	Entry-level visual designer at an ads company

Laura is an entry-level visual designer who works at a large advertisement company with heavy workload and tight deadlines. They enjoy visiting galleries with friends and coworkers to find fresh inspirations for their work, but sometimes it is hard to find energy and time to add this activity in their life. Laura is looking for an app that can satisfy her thirst for inspirations and social interactions while not taking much time, money, and energy.

Google

User journey map

By mapping the user journey, we can see how the user can conveniently get the realistic and inspirational gallery experiences and can easily share them with friends and peers.

Persona: Laura

Goal: Through a virtual tour app with assistive technology (AT) for dyslexia, to get a realistic and inspirational gallery tour experience and share the inspiration with peers

ACTION	Get the gallery app	Choose an exhibition	Explore the exhibition	Mark favorite work of art	Share the favorites with friends
TASK LIST	Tasks A. create an account B. Set up preferred areas of art C. Turn on the notification for upcoming exhibitions	Tasks A. Scroll through different exhibitions B. Tap on the exhibition of their interest	Tasks A. Navigate the exhibition floor. B. Go near an artwork to view closely C. Tap on the image of a description panel next to an artwork to learn the details of the artwork.	Tasks A. Tap on a heart icon on the screen showing a individual work of art B. Go to "My Favorites" page to check if the artwork is saved C. Come back to the exhibition floor and continue the tour	Tasks A. Go to "My Favorites" and choose an artwork to share. B. Choose people to share the artwork from "Friends" list C. Send an invite to friends to check out the artwork saved in "my favorites" folder.
FEELING ADJECTIVE	- Excited - Pressured because they have to select areas of their interest.	- Frustrated because they don't know what the theme of each exhibition is.	- Impressed by clear images and 3D options of artworks - frustrated by the small lengthy text on info board - overwhelmed when they were back to the entrance of the exhibition on their return	- Happy to be able to save their favorite artworks - irritated when they are back to the entrance of the exhibition when they came back to floor from "My favorite" page	- Excited to exchange comments on artworks with friends. - disappointed when they can't find a friend from the list
IMPROVEMENT OPPORTUNITIES	- Offer an option "skip" for now" for users who are not sure of preferred areas of art	- Add a pop-up info window for further explanation of each exhibition	- Add AT options in the initial setting - Add a screen reader feature on the info board	- Save the current position of the user on the exhibition floor and put them back to the latest spot on their return	- Have a feature that can import friends' mobile phone numbers from Contact on user's phone for sending invites if the recipients are not the members of the app.

Google

Starting the design

- Paper wireframes
- Digital wireframes
- Low-fidelity prototype
- Usability studies

Google

Paper wireframes

Going through iterations of the screen ensure the digital wireframe created from this process will address the user's pain points.

For the home screen shown here, I wanted to make sure the users have multiple ways to enter different exhibitions for the gallery exploration.
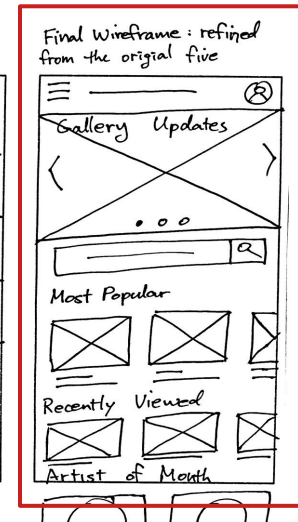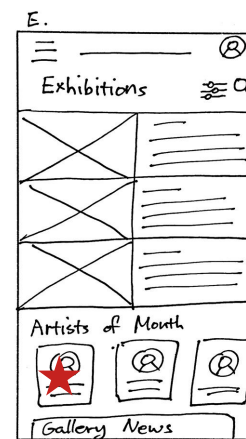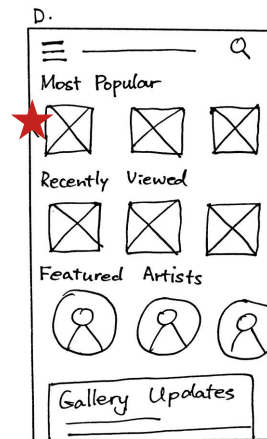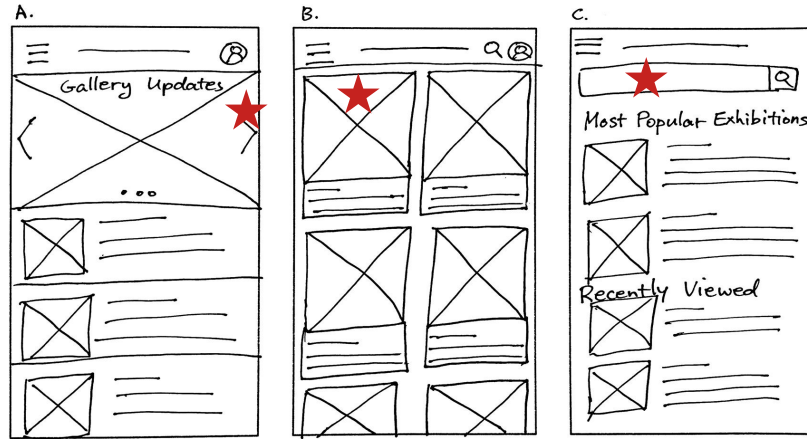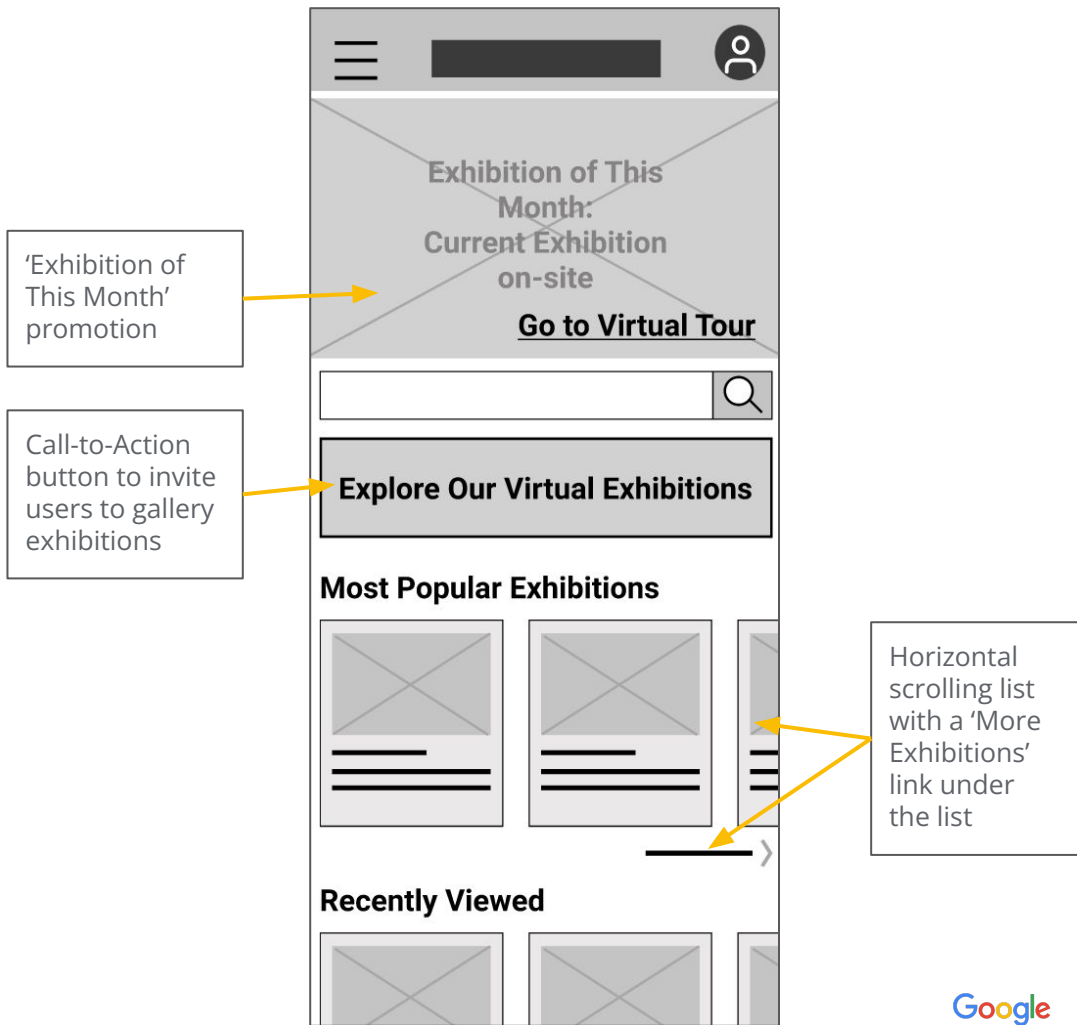
Paper wireframes: User flow

Leveraging the speedy and less-engaging nature of Pen & Paper (P&P) wireframes, I could iterated designs for each screen and came up with the for digital wireframes.

Google
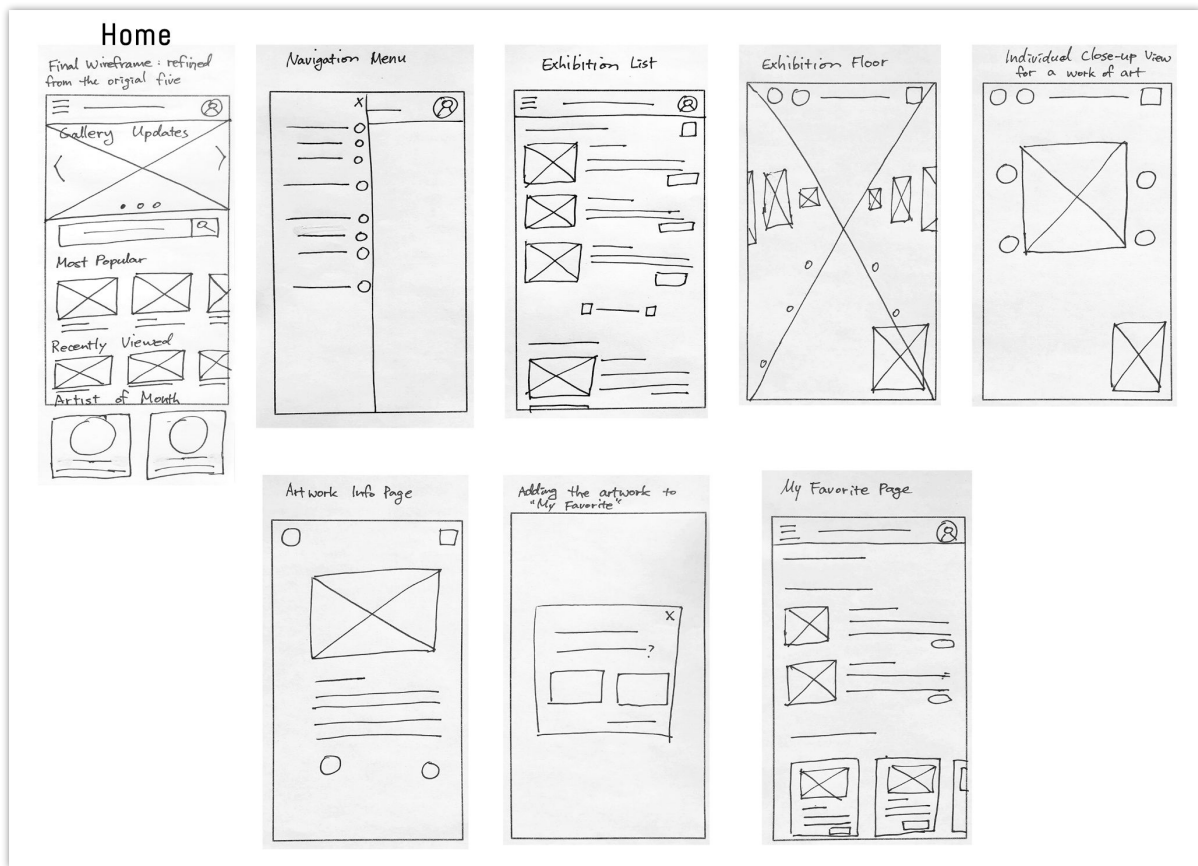
Digital wireframes

Home screen:

Users can explore different exhibitions and start their journey by using different links and buttons on the home screen.

'Exhibition of This Month' promotion

Call-to-Action button to invite users to gallery exhibitions

Horizontal scrolling list with a 'More Exhibitions' link under the list

Exhibition of This Month:
Current Exhibition on-site

Go to Virtual Tour

Explore Our Virtual Exhibitions

Most Popular Exhibitions

Recently Viewed

Google

Digital wireframes

3D exploration of the exhibition floor:
Users can double tap or one-finger slide to move around the floor. The white dots are the moving point and the rectangles are the artwork.

A click on either the image of the artwork or the floor spot will take the user to a single artwork view.
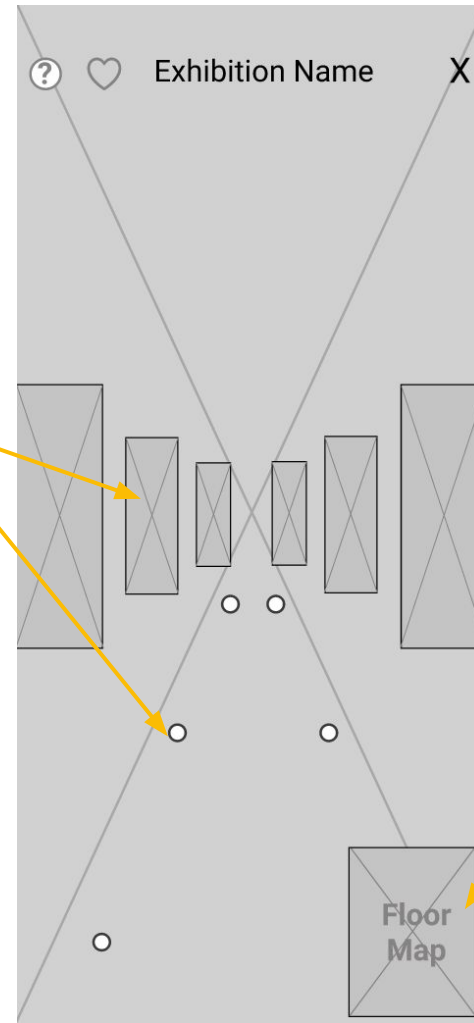
The floor map show users where they are on the entire floor plan and allow them to jump from one point to another.

Floor Map

Digital wireframes

2D exploration of the
exhibition floor:
Users can explore artwork
from this 2D list view
instead of the 3D exhibition
floor exploration format.

Both image
and text will be
clickable to
open the view
window for a
single artwork.

Artworks

Search all Artworks

Most Recently Added Artworks

Google
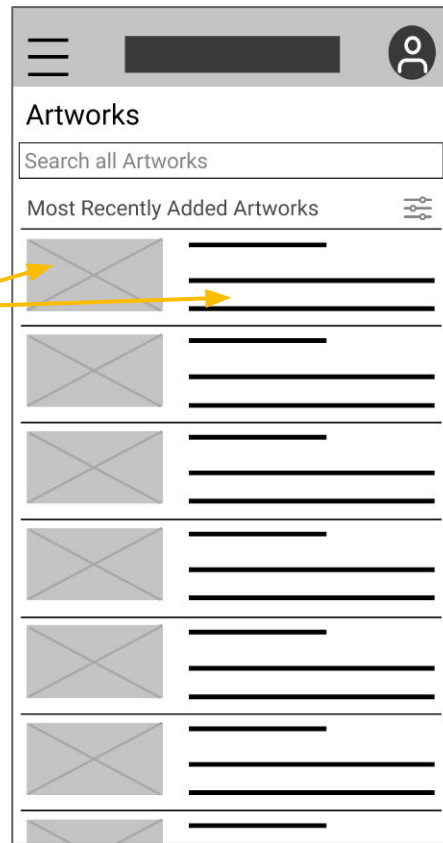
Digital wireframes

Individual artwork display view with action options: This is where users can have options to have more realistic observation over a sigle artwork or share the artwork with their peers.

Exhibition Name

X

Users can click the heart icon to add the art to 'My Favorites"

Users can shaere this artwork by posting or email the link

By clicking this info icon, users can get the details of the artwork

360º

This button will activate the 360-degree view popup window. The user can spin the artwork the enjoy the art work from any angle..

Floor Map
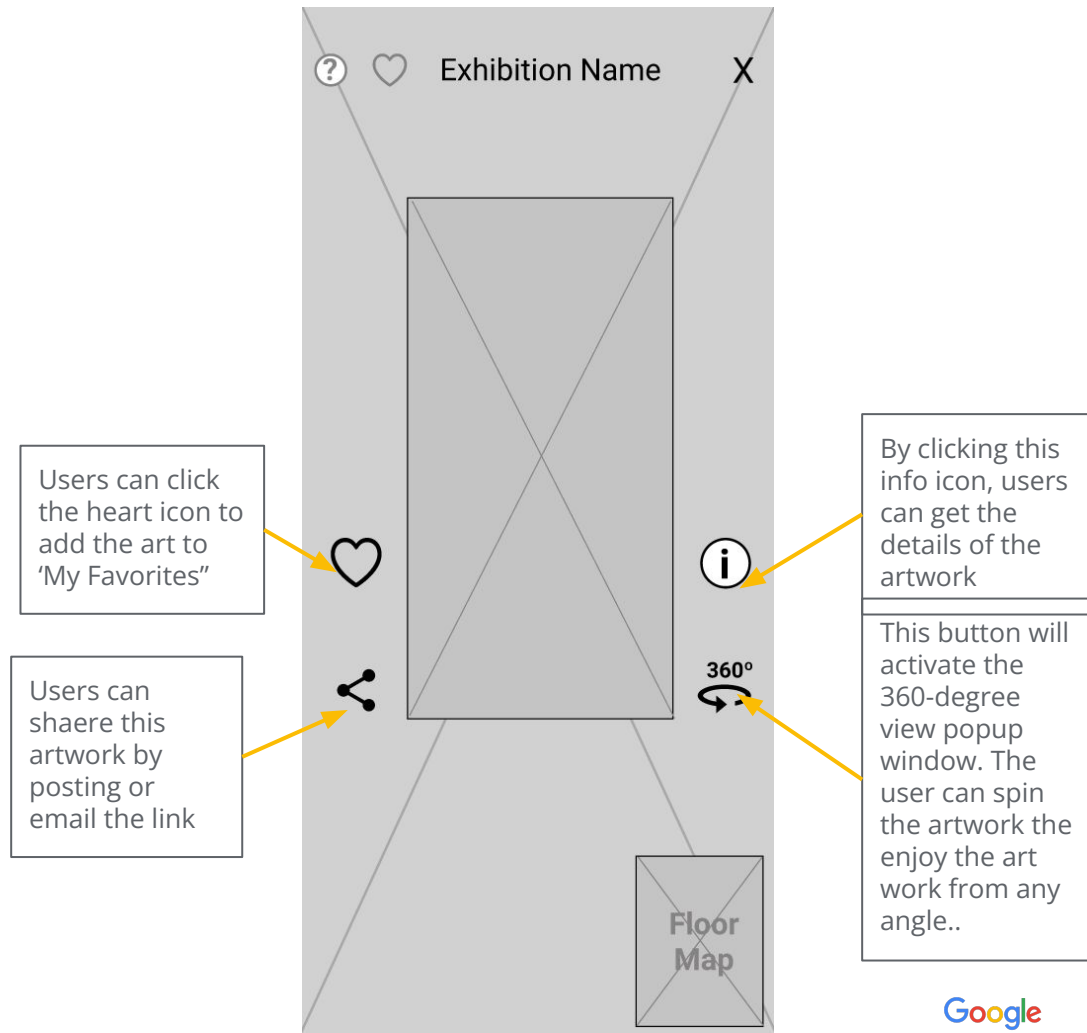
Digital wireframes

Popup windows for each action icon will help users get more realistic and socially interactive experiences.
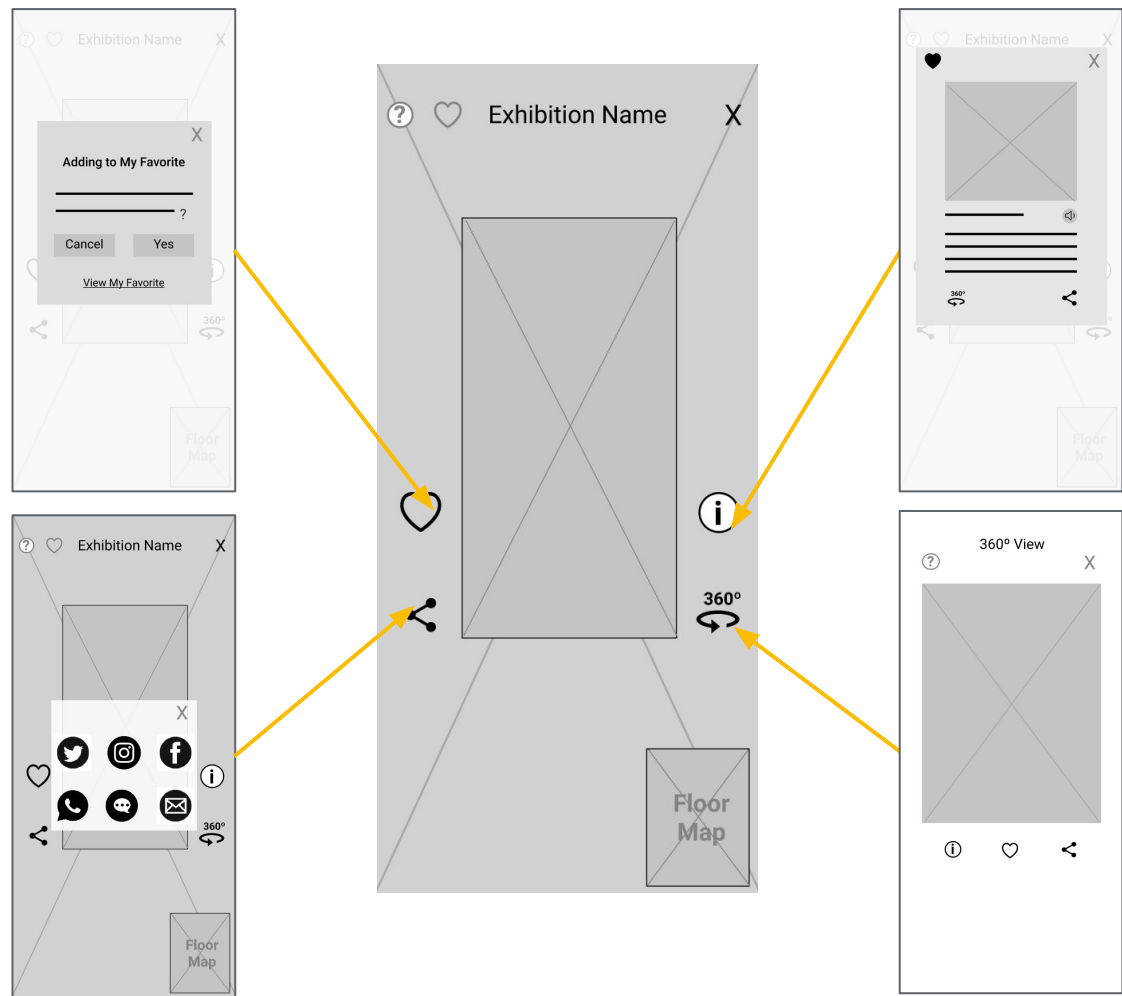
Low-fidelity prototype

As shown in the video, the low-fidelity prototype displays a primary user flow and main features of the app. The prototype will be used in a usability study to see if the app would provide realistic and convenient ways for users to explore and share the artworks at the gallery.

Link:

https://www.figma.com/proto/DcgbKOAMcZW49qEZIpV9eZ/Virtual-Gallery-Tour-Hi-Fi-Prototype?node-id=712%3A2127&scaling=scale-down&page-id=712%3A2126&starting-point-node-id=712%3A2127

Click the image for the video demo.

Google
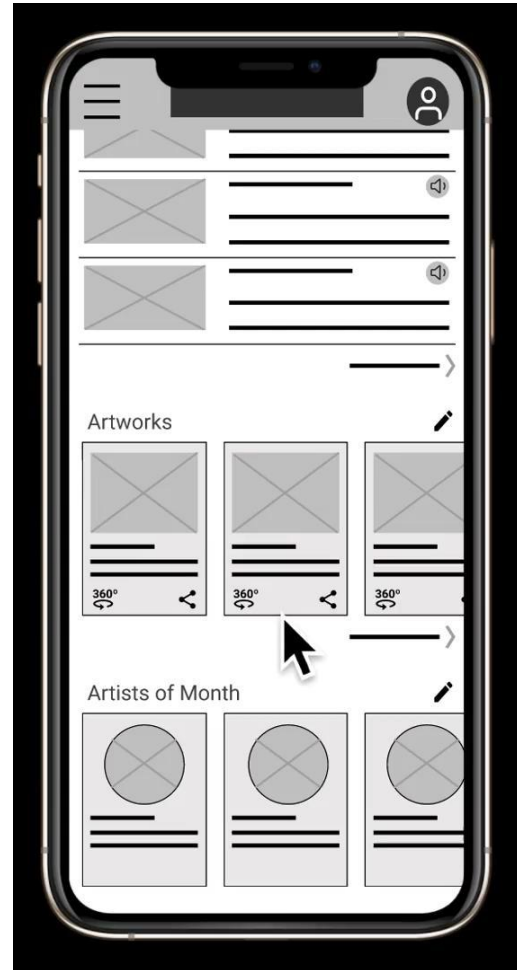
Usability study: findings

Both usability studies were unmodified and performed remotely by 5 participants. The goals of the study was to determine if it is easy for users to finish the core tasks including finding inspirational artworks and sharing them with friends and peers. Key Performance Indicators include time to finish each task, conversion rate, and system usability scale.

Round 1 findings

1. Users need the navigation menu access available at any point of the screen.

2. Users want a shorter route for actions without extra popup windows.

3. Users want the section titles to be more insightful.

4. Users want a more consistent pattern of listing items.

Round 2 findings

1. Users get confused between the info heart and the "Like"-action heart icon.

2. Users want to see what's following after clicking on one of the share options.

3. Users find the floor map on 3D exhibition floor screen taking up too much space.

Google

Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

Google

Mockups

Insight: Users need the navigation menu access available at any point of the screen.

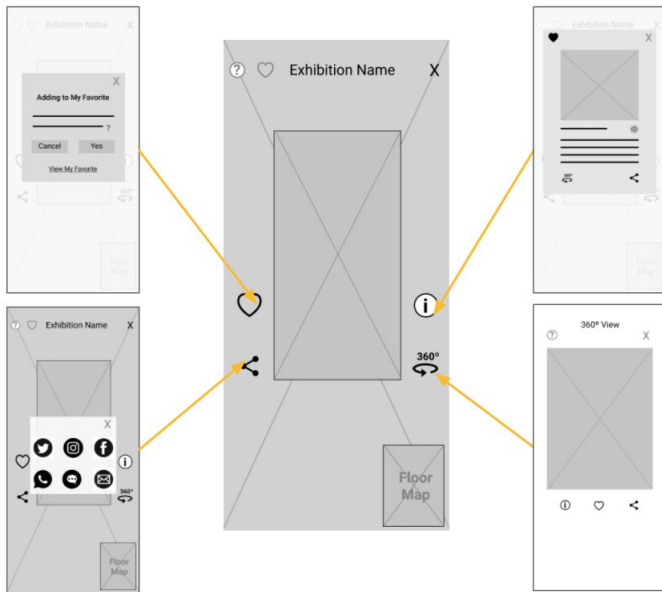Solution: Adding a "Top" button when users start to scroll down.
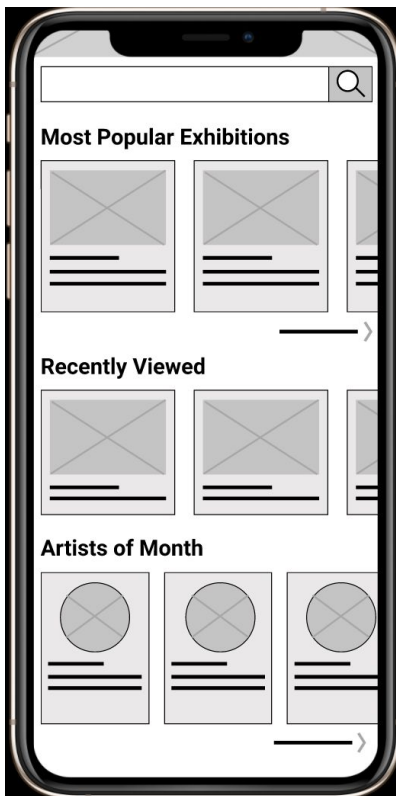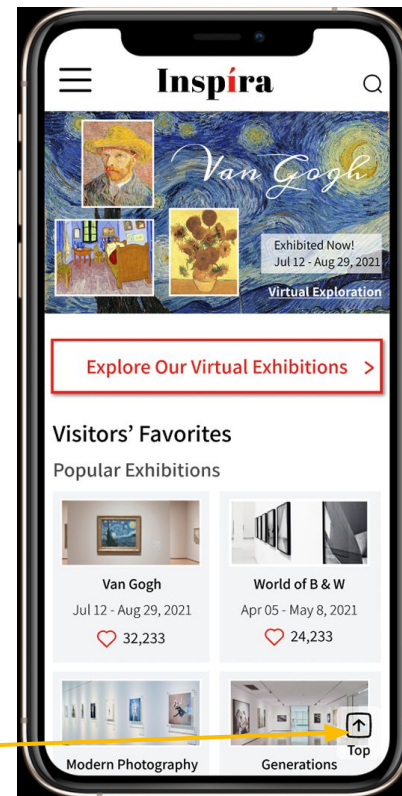
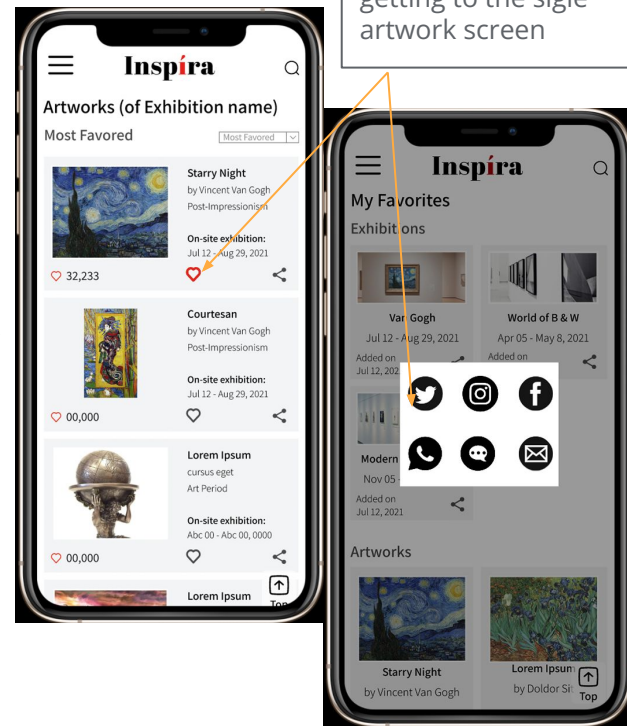This "Top" button will be fixed here as the user scrolls down

Mockups

Insight: Users want a shorter route for actions without extra popup windows.

Solution: Users can directly reach to the info and mark the favorite without

Direct action without getting to the sigle artwork screen

Mockups

Insight: Users want the section titles to be more insightful.
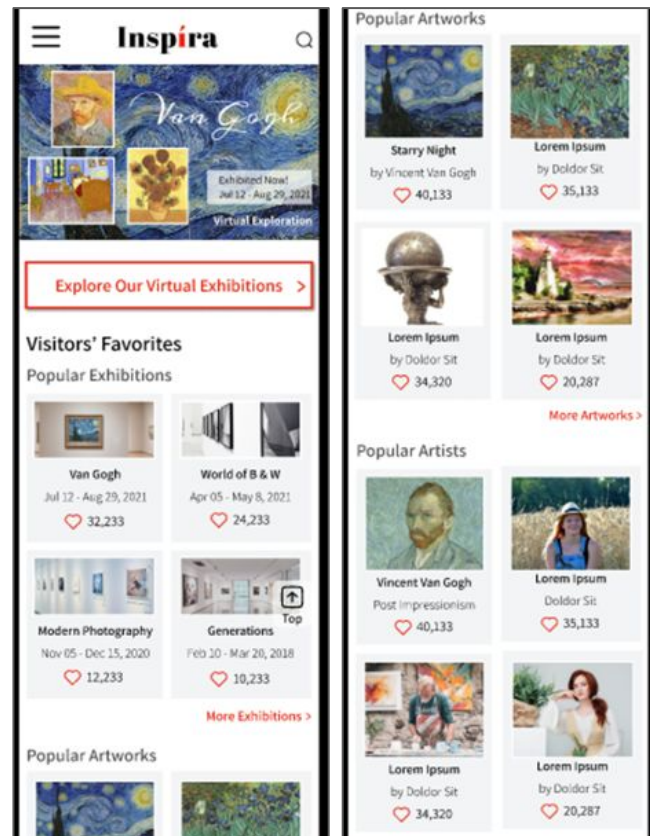
Solution: Making the titles more specific.
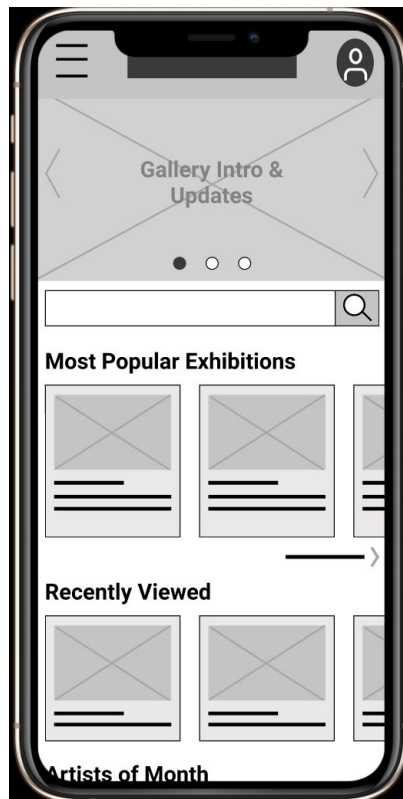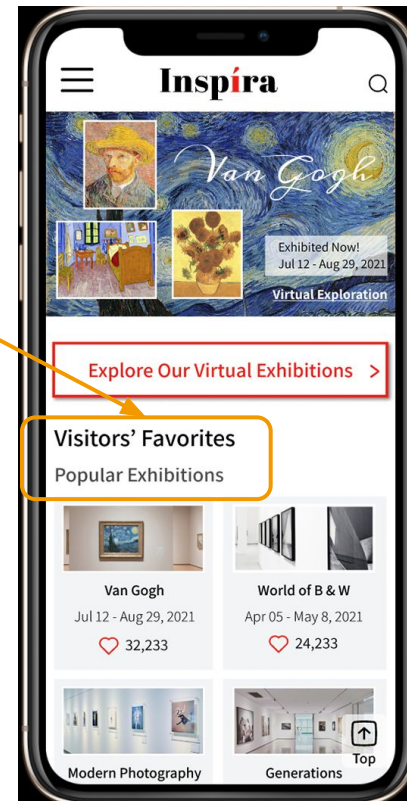
Mockups

Insight: Users want a more consistent pattern of listing items.

Solution: creating a card pattern for multiple applications in different sections
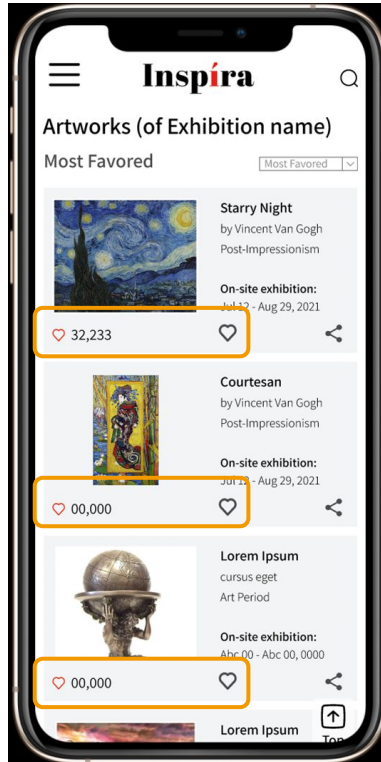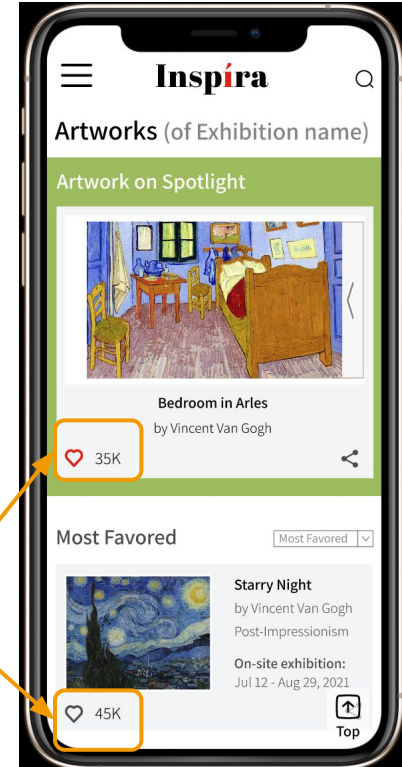
Google
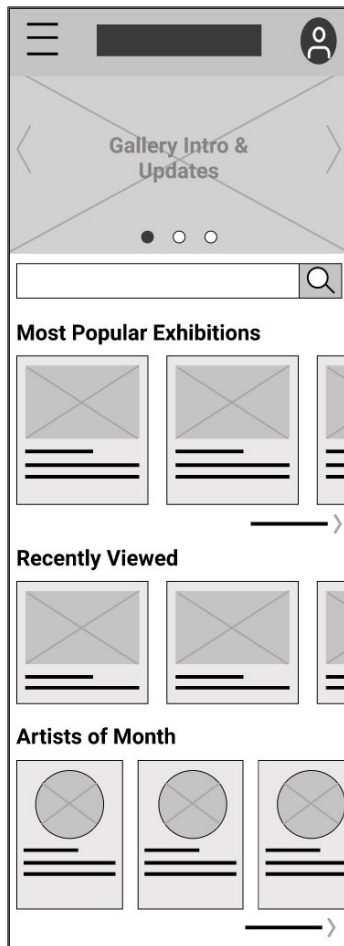
Mockups

Insight: Users get confused between the info heart and the "Like"-action heart icon.

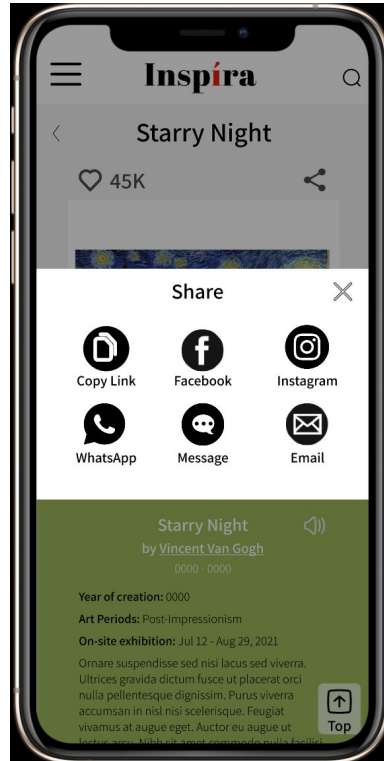Solution: Combining two hearts and make the heart icon clickable for marking user's favorites.
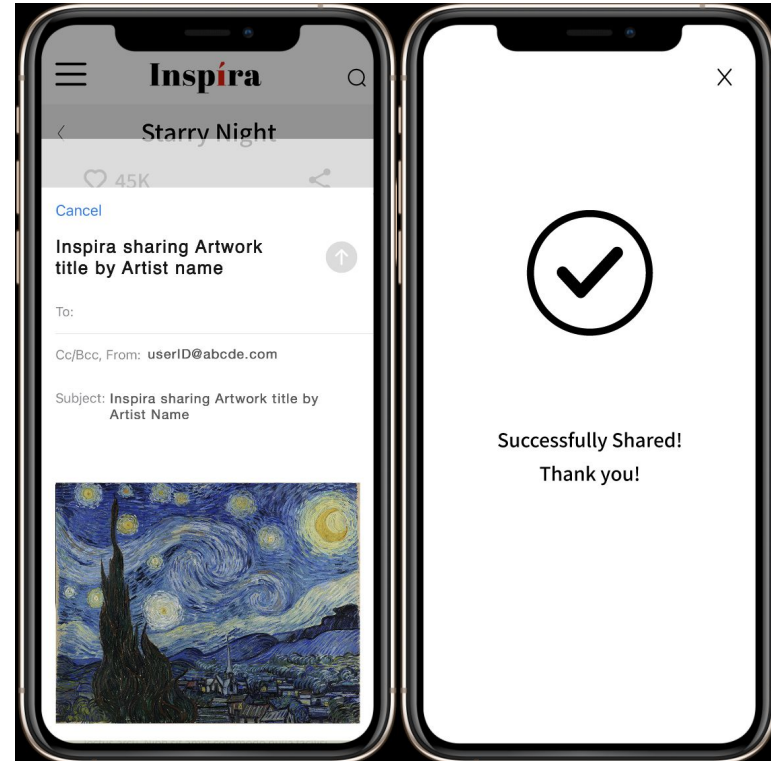
Mockups

Insight: Users want to see what's following after clicking on one of the share options.

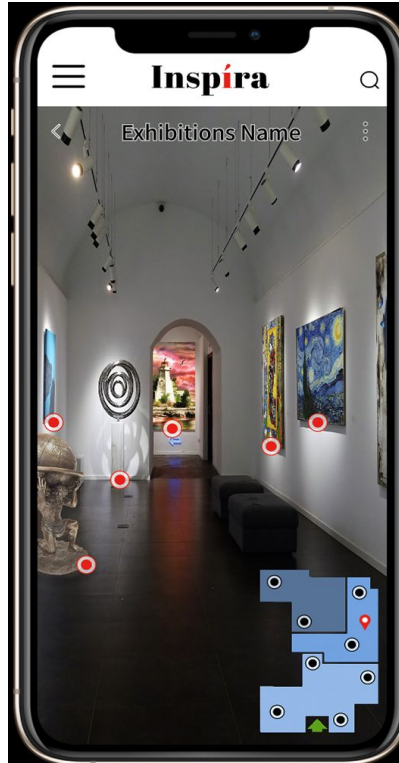Solution: Adding more mockups to show how their action will be confirmed.
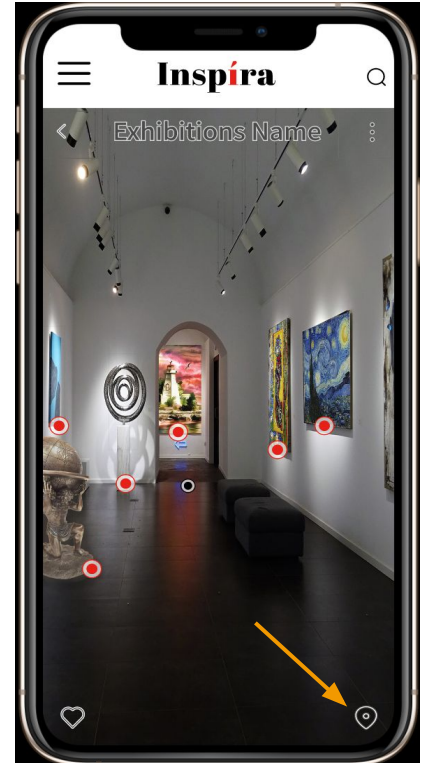
Mockups

Insight: Users find the floor map on 3D exhibition floor screen taking up too much space.

Solution: Replacing the map with the 'current position' icon

Mockups: After Initial Usability Study

Home - full

Home-phone Screen View

Exhibitions w/ Promotion

Exhibitions - No Promotion

Exhibition Floor

2D Artwork List

Artwork Details

Navigation Menu

Artist List

Artist Details

My Favorites

Share with Others

Google
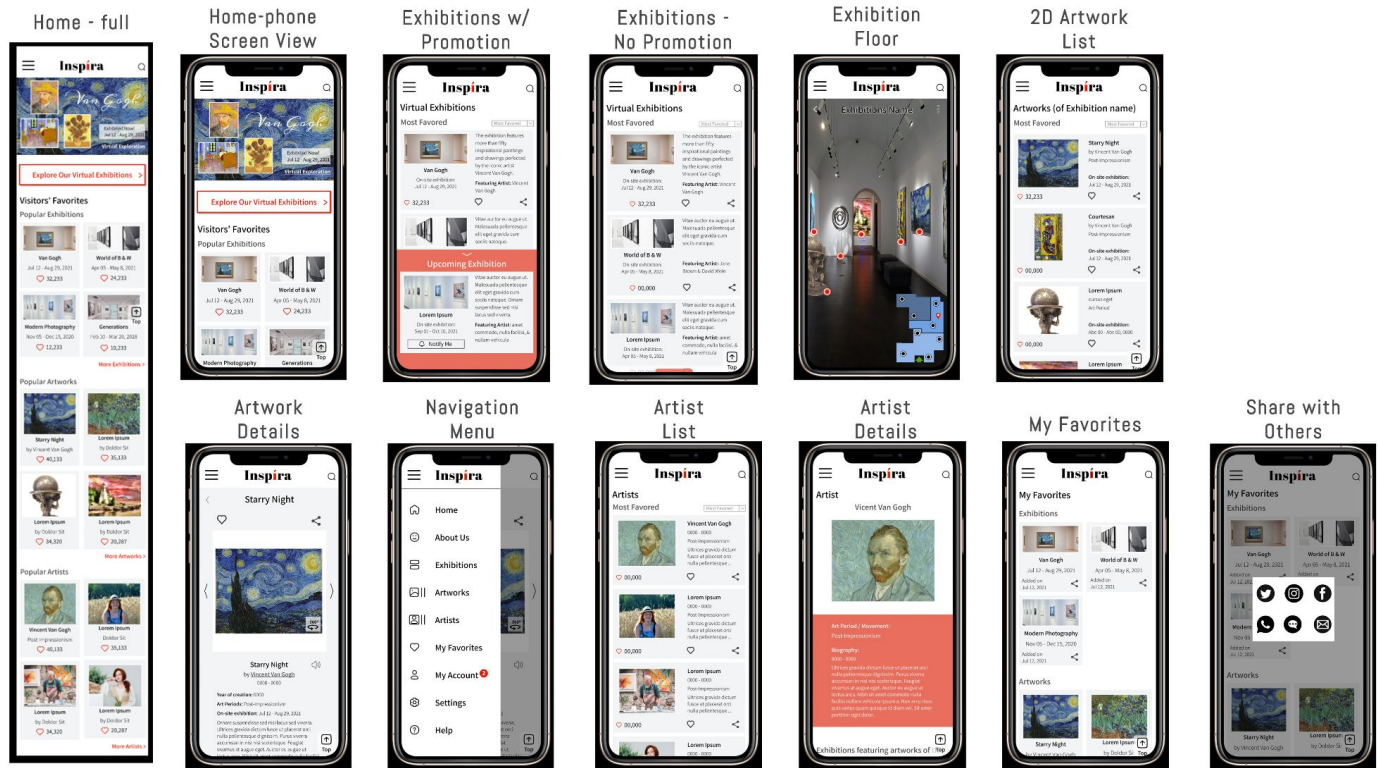
Mockups: After Usability Study 2

Google
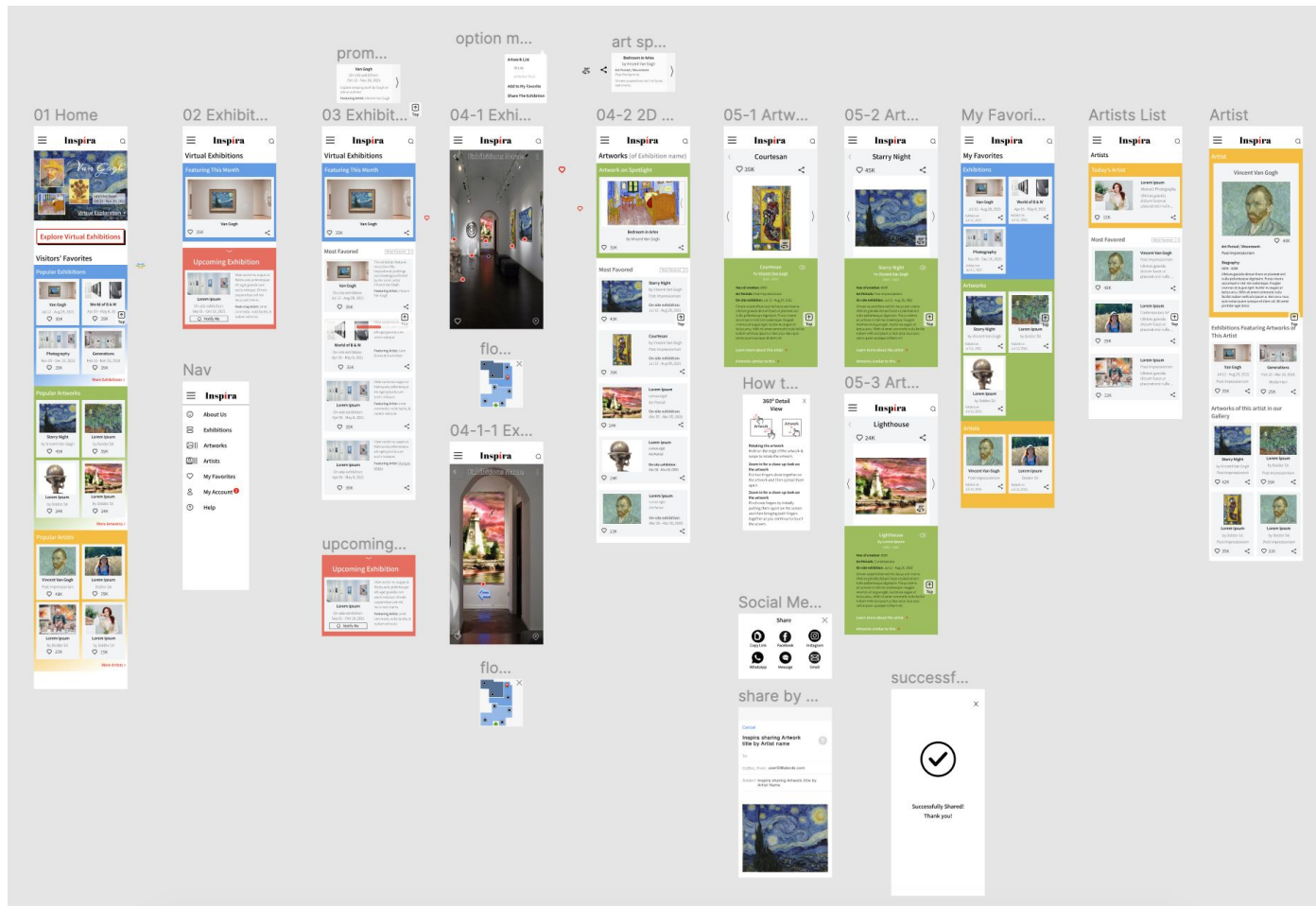
High-fidelity prototype

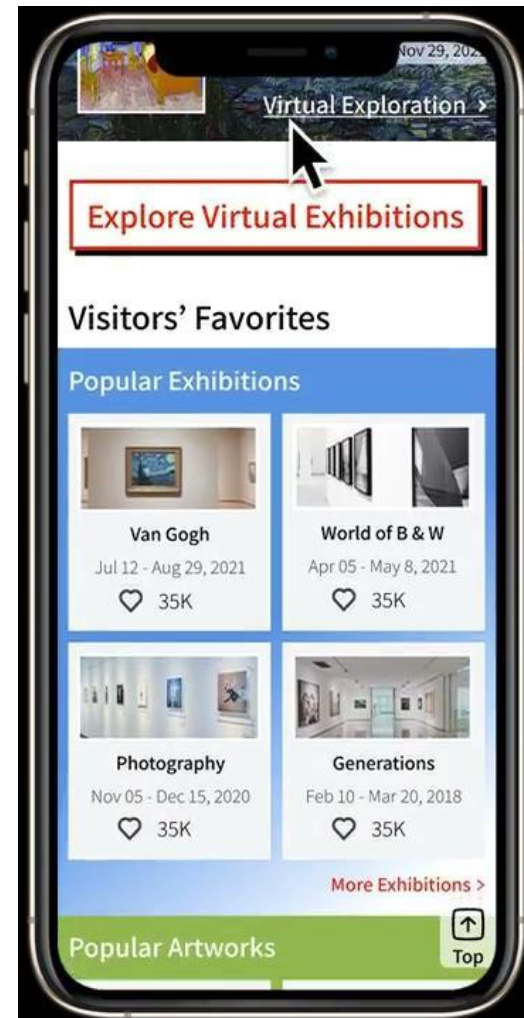This high-fidelity prototype shows different ways users can explore the virtual gallery and find inspirational artworks. After multiple iterations, marking user's favorites and sharing became simple and easy. Although it is not presented in this hi-fi prototype, the interactive 360° view of a single artwork can bring the user most realistic and thorough observation of the artwork.

Link:

https://www.figma.com/proto/DcgbKOAMcZW49qEZIpV9eZ/Virtual-Gallery-Tour-Hi-Fi-Prototype?node-id=698%3A1166&scaling=scale-down&page-id=698%3A646&starting-point-node-id=698%3A647&show-proto-sidebar=1

Click the image for the video demo.

Google

Accessibility considerations

1

Since 3D floor exploration might use up more data, the app gives the user an ability to switch to a 2D list of artwork for a exhibition exploration.

2

All transition animations take at least 500 ms long, following W3C recommendation.

3

For visually impaired users, the app provide the screen reader feature for the details of art work and the main menu.

Google

Going forward

- Takeaways
- Next steps

Google

Takeaways

Impact:

The app virtually brings the art gallery to its users without costing them extra time or energy to physically visit. It provides multiple ways of finding and appreciating inspirational artworks and makes it easy for users to share them with their interests.

A quote from peer feedback:
"This is an amazing app. I can already see so many use cases where people can benefit from this app especially during this pandemic."

What I learned:

Through the design process, I learn the power of feedback and iterations. I've got a tremendous amount of constructive feedback during the usability studies, and iterating for solutions really helped improve my designs. I also learned to think around the goal of the project when there are multiple solutions for an issue. Putting the user first and thinking about the purpose of the design helped me making choices for better designs.

Next steps

1

Extend accessibility features and make them more prominent and customizable for each user.

2

Run another usability study to check the previous pain points are well addressed in the current design

3

Make the design responsive for different devices

Google

Let's connect!

Thank you so much for reviewing my design process for Inspíra Virtual Gallery Tour App. Please reach out to me if you'd like to share your feedback or get in touch.

Hyun Dasdan
HDasdan.bh@gmail.com

Google