

Audio Tour App

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Project overview



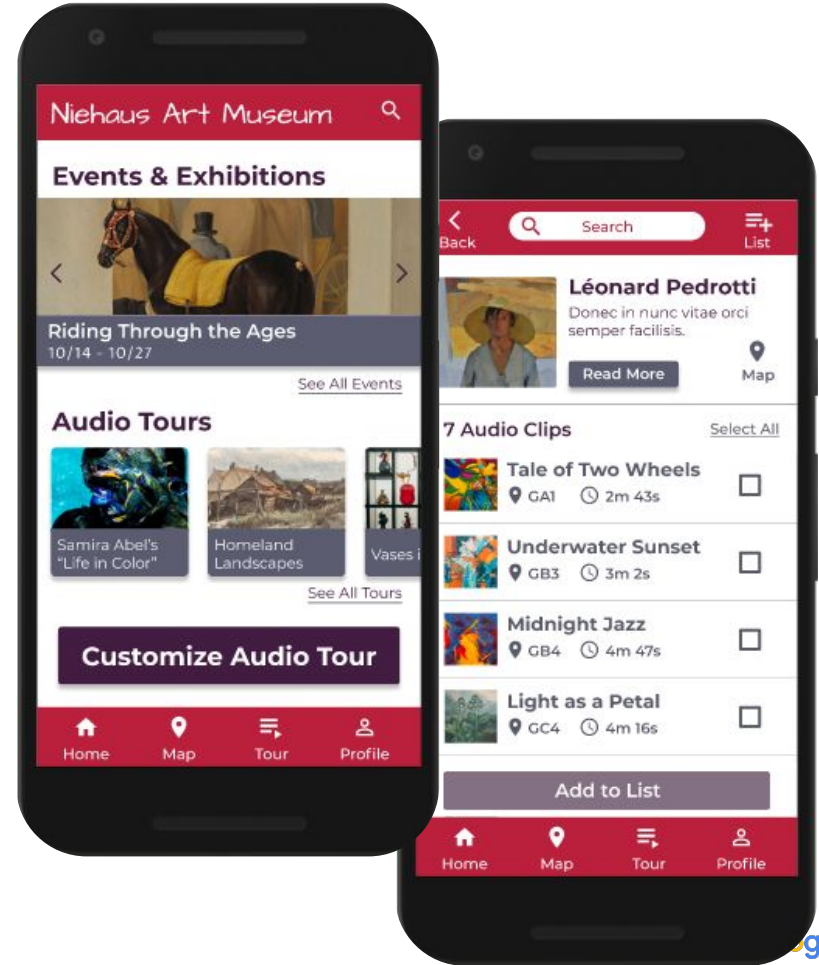
The product:

The Niehaus Art Museum app provides audio tours of the museum's art collections. Visitors of the Niehaus Art Museum can use the app to choose from existing audio tours or to customize their own audio tours based on artwork they're interested in - creating more personal experiences.



Project duration:

August 2021 - September 2021



Project overview



The problem:

Art museum visitors want an immersive and interactive audio tour experience.



The goal:

Design an art museum audio tour app that allows users to customize audio tours by choosing audio clips about artwork.

Project overview



My role:

UX designer designing an art museum audio tour app through every aspect of the design process.



Responsibilities:

Conducting user research, interviews, usability studies, and competitive audits; creating paper and digital wireframes; designing low- and high-fidelity prototypes; accounting for accessibility; and iterating on designs

Understanding the user

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

User research: summary



I conducted interviews and created empathy maps to understand user behaviors and needs walking through art museums with or without audio tours. I identified two user groups. One was adults who want to be immersed in atmospheres of art exhibits. The other one was young adults spontaneously looking for something fun to do with friends.

My research confirmed a user group of older generations that prefer some form of audio service included in their visits adds great value to their experience. What I learned from my research was that younger generations of users, in this world full of technology, want to be connected with people wherever they are, even while visiting museums. While both user groups have their own set of frustrations, they both want an experience that is interactive, invaluable, and immersive.

User research: pain points

1

Depth

Audio tours can tend to lack depth in voices, stories, and other interesting information

2

Ambience

Audio tours can tend to lack a format that sets an ambience, including music, personable voices, and anticipation

3

Possibilities

Audio tours can be limited in tour options

4

Equipment

Faulty audio equipment disrupts the visitor's experience

Persona: Samira

Problem statement:

Samira is a busy chef who needs a way to feel immersed in stories about artwork because some audio tours can be monotone and lack depth in information.



Samira

Age: 43

Education: Culinary Degree

Hometown: Chicago, IL

Family: Husband + Cat

Occupation: Chef

"I love it when I feel like I'm in that moment of time when an artist created a piece of work."

Goals

- Be immersed in stories, voices, music, atmosphere related to the artwork
- Draw inspiration from the museum visit for creating recipes

Frustrations

- Distracted with faulty audio equipment
- Audio tour is monotone or lacks depth of information related to the artwork

Samira is a chef at a popular restaurant in downtown Chicago. She enjoys planning out the menu and creating new recipes and flavor profiles. Samira is bilingual - English and French. She has a busy, yet steady work schedule. Some weekends, she likes to visit the latest art exhibits across the city. Her experiences at the art exhibits can sometimes influence her work creations.

Persona: Lena

Problem statement:

Lena is a college freshman who needs a fun, interactive, feel-good activity to do because she doesn't want to spend her weekend doing an activity that she feels is dull or a waste of time.



Lena

Age: 19

Education: College, Freshman

Hometown: Houston, TX

Family: Roommate

Occupation: Part-time administrative assistant

"I look for new, fun events going on each weekend that I can do with friends."

Goals

- To do something fun with someone she enjoys being with
- Make the most of her time in college

Frustrations

- The activity she's doing is slow or a waste of time
- The atmosphere is dull, lacks energy, or constrictive

Lena is a freshman at a university in Houston. She's undecided in her choice of major. Lena is thinking of either going into sports science or computer science. She is always looking for something fun to do. Her and her old high school friends plan out there weekends together. If there's a last minute change in plans, then they might look up to see what else they can do instead or cancel their meetup.

User journey map: Samira

Considering accessibility in Samira's journey map would help alleviate distractions of accidentally exiting the audio tour or double checking where to stop on the tour route.

Persona: Samira

Goal: Do an audio tour of a specific art exhibit at an art museum.

ACTION	Rent Audio Guide	Choose Audio Tour	Follow Audio Tour	Listen to Audio Tour	Return Audio Guide
TASK LIST	A. Go to the service desk B. Rent audio device & headset C. Get museum map	A. Learn how to use audio device B. Select tour for specific art exhibit C. Start audio tour	A. Find starting point on the map B. Preview entire tour route C. Use map to follow along with the audio tour	A. Pause audio for more time admiring artwork B. Choose options on device to learn more	A. Return audio device & headset to service desk B. Reflect on things learned & observations
FEELING ADJECTIVE	Energized to visit the art exhibit Optimistic for a great audio tour	Determined to know how to use device Satisfied as tour begins	Focused on tour navigation Confused on how to navigate the tour	Amazed with the audio to so far Annoyed with faulty audio device	Inspired to create new recipes Disappointed in lack of variety of info
IMPROVEMENT OPPORTUNITIES	Create an audio tour app with museum map to skip audio device rental	Add brief how-to-use tutorial and language options. Easy to find available tours.	Map on app shows current location, route, and stops. Vibrate when near a stop on the route.	Audio describes app options to learn more. Double tap if accidentally exiting or confirm learning more.	Add section to app for users to add notes

User journey map: **Lena**

Lena's user journey shows that she likes to be connected at all times and have a sense of control of her experience at the museum. The app will feel like it's connecting with the user and offer plenty of options to choose from for the user to feel in control.

Persona: **Lena**

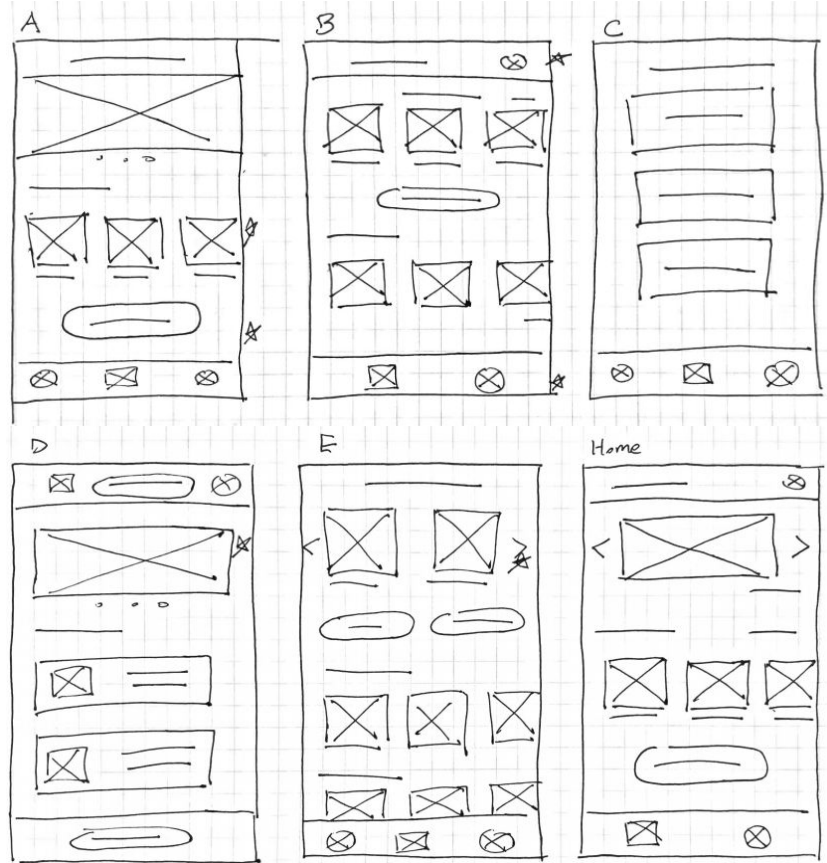
Goal: Visit art museum with college friends due to another event being cancelled.

ACTION	Purchase Tickets	Walk Around	Eat at Cafe	Decide Where Else to Go in Museum	Go to Gift Shop
TASK LIST	A. Get tickets and map from service desk B. Decline renting audio guide and headset	A. Walk around starting with the nearest art exhibit B. Talk about art with friends C. Take pictures where permitted	A. Find cafe on map B. Go to and eat at cafe C. Chat with friends and check social media	A. Check map for other art exhibits B. Look for interactive art or rooms with intriguing ambience C. Listen to audio recordings in rooms	A. Find gift shop on map B. Go to and checkout the gift shop C. Leave museum
FEELING ADJECTIVE	Pleased with ticket purchasing process Optimistic for a fun time with friends	Free - Be herself; choose where to go Restricted in where to go; no pictures	Connected with friends Re-energized after eating	Curious to see other interesting art Bored - read more than interact	Hopeful to find a fun souvenir Indifferent about overall experience
IMPROVEMENT OPPORTUNITIES	Create a free audio tour app with museum map. App talks about its features and allows voice selection	Variety of tours: 1-hour; special exhibits; create own tour. App vibrates near art indicating learn more options	App uses pleasing, conversational voices in audio tours. User can share their tour on social media	App mentions it has quick access to types of experiences, which include audio elements	App offers option to hear about upcoming exhibits and experiences before user exits app; leave reviews

Paper wireframes

One of the unique value propositions of the app is to allow users to customize their own audio tours. The home screen of the app should make it clear that users can customize tours or choose one of the available museum audio tours.

Stars marked next to the elements in the first 5 sketches are used in the single, refined wireframe.

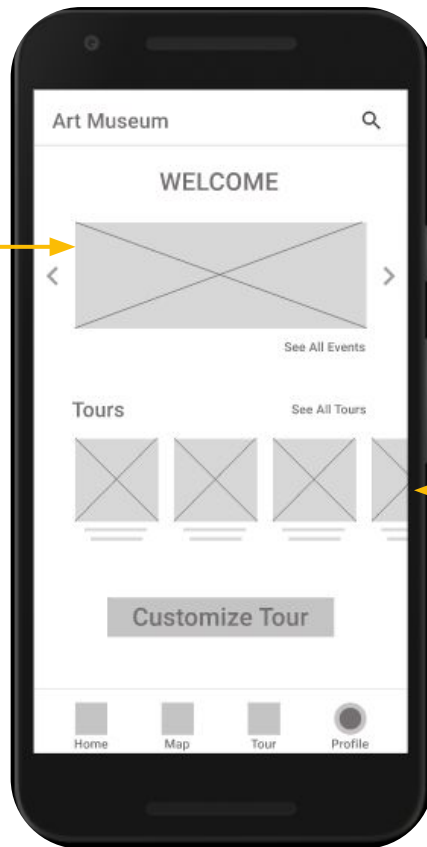


Digital wireframes

As I transitioned the paper wireframe of the home screen to a digital wireframe, I factored in Gestalt proximity principle to clean up the design.

I expanded the number of options in the navigation bar to open a map and to access the current tour.

The image carousel highlights museum events



This element lets users scroll through popular audio tours

Digital wireframes

Users will see a list of audio clips of artwork associated with an art category (ex. artist). Then they can select certain audio clips of artwork that they prefer to listen to and add those selections to a “cart” (similar to shopping on mobile apps).

This section of elements briefly describes the art category of all the audio clips below.

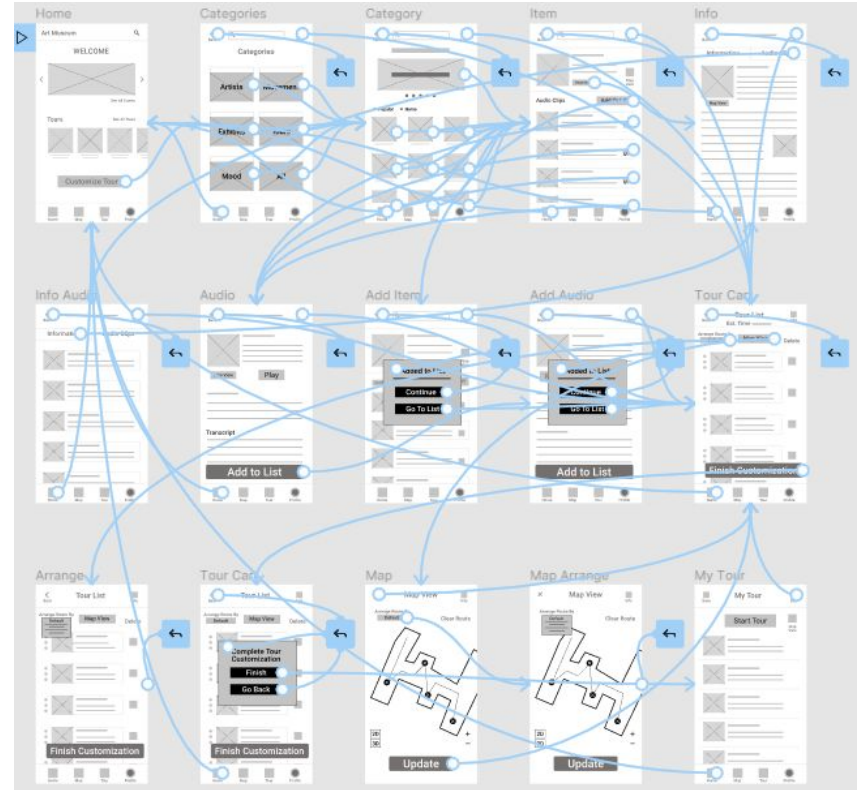


Users can tap this group of elements to view more information about the audio clip or select it to be added to the cart.

Low-fidelity prototype

The low-fidelity prototype connected the primary user flow of customizing an audio tour. This prototype was used in a usability study with users.

[View the audio tour app prototype](#)



Usability study: findings

My research involved conducting two usability studies. My first usability study had participants test the audio tour customization user flow in the low-fidelity prototype. Findings from that study helped in designing the mockups. Then I conducted a second usability study for participants to test the high-fidelity prototype that revealed the findings below.

Round 1 findings

- 1 Users need guidance on how to customize audio tours
- 2 Users need better naming conventions for buttons & labels
- 3 Users want clear cues for arranging the order of their audio tours

Round 2 findings

- 1 Guidance information needs to be simple and clear
- 2 The color and layout of the app should reflect the modern era

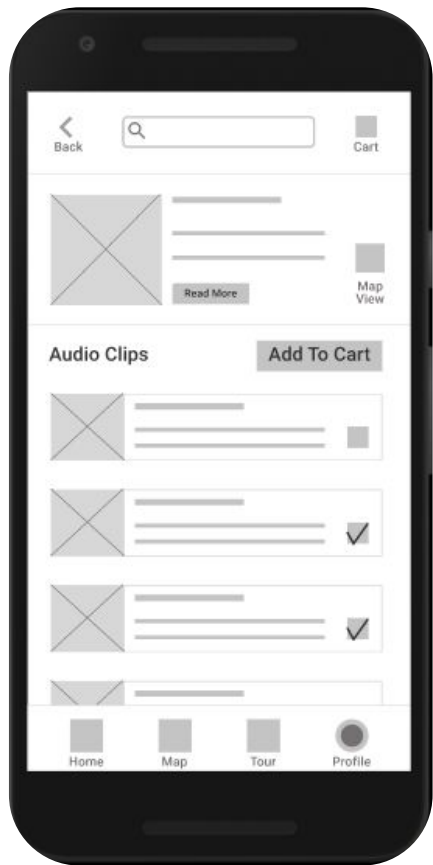
Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

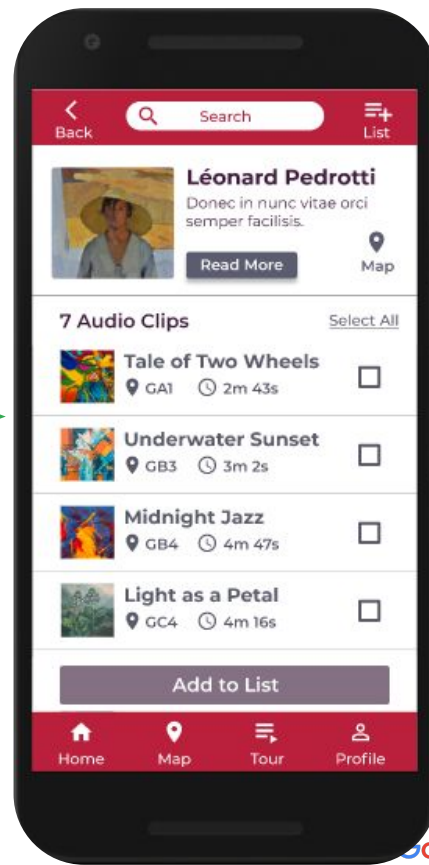
Mockups

Originally, I used the term **'cart'** for storing audio clips because I likened my designs to shopping apps. After the usability studies, **I didn't want users thinking they were purchasing audio tours**. So I changed the term to **'playlist'**, and I started relating my designs to music apps.

Before usability studies



After usability studies



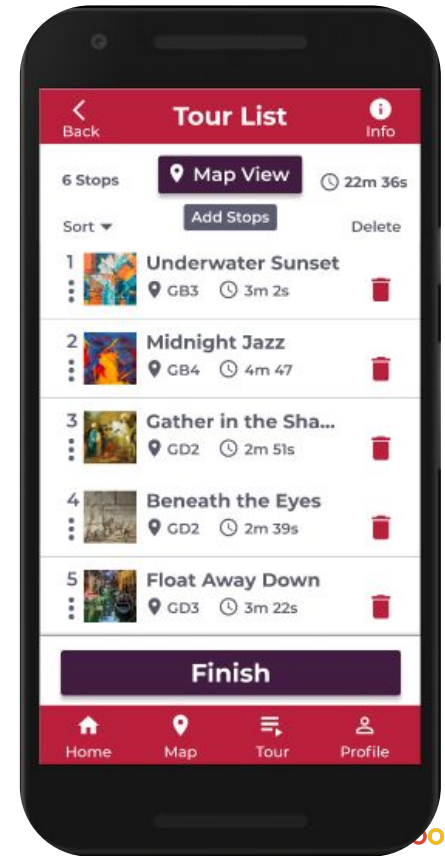
Mockups

The second usability study revealed the need to brighten up the color theme and modify the visual design to appear more modern. So I referred to apps that have playlists and shopping carts for ideas.

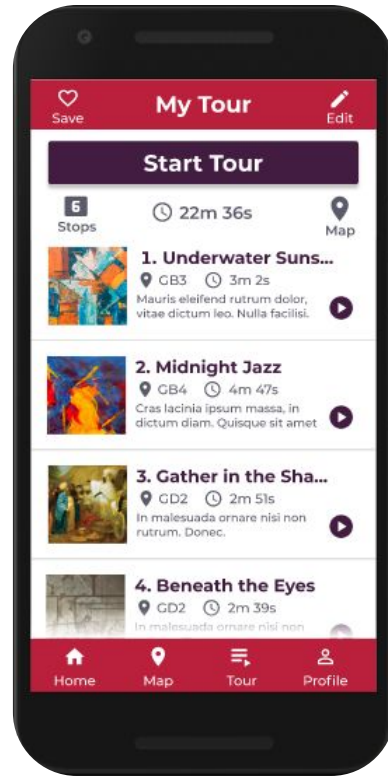
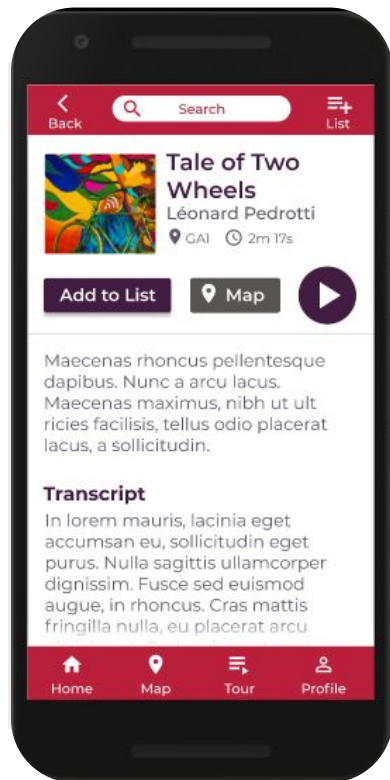
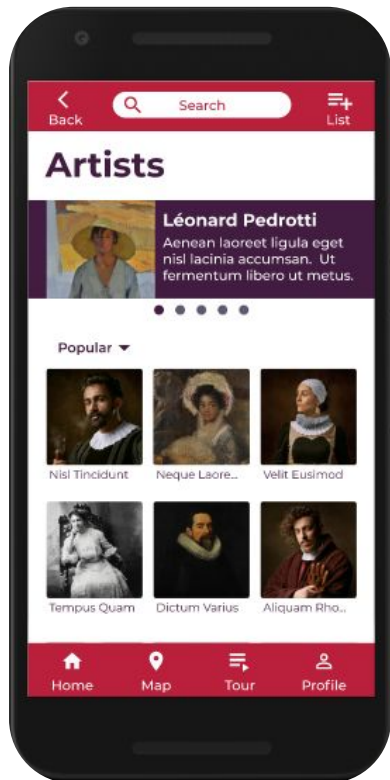
Before usability study 2



After usability study 2



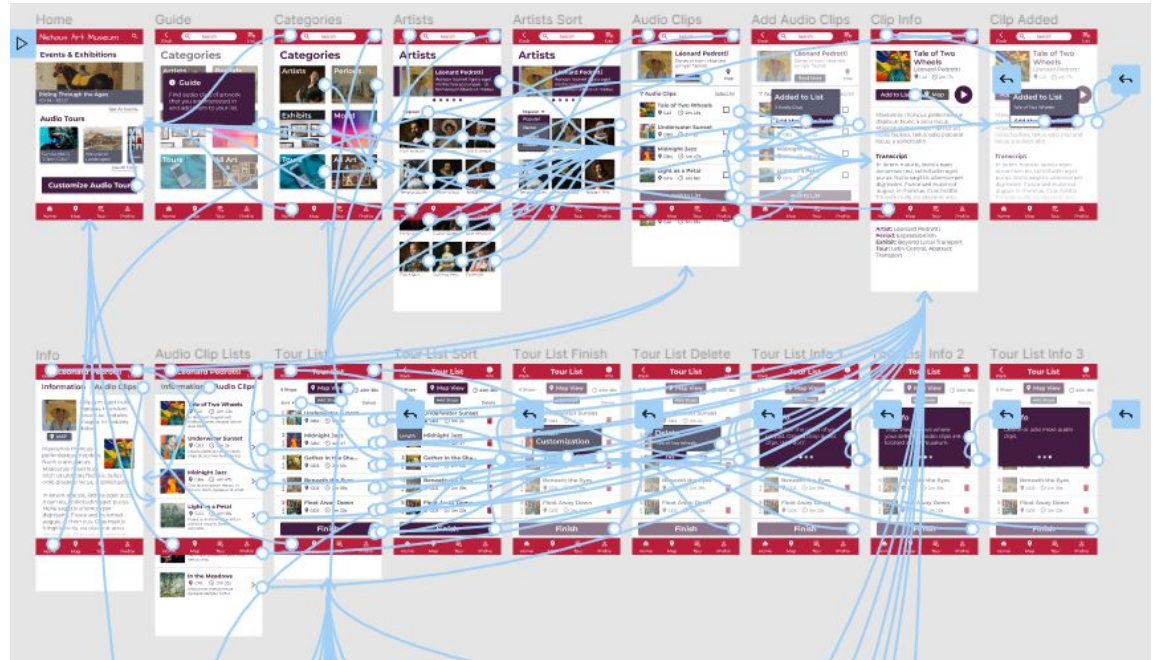
Mockups



High-fidelity prototype

The final high-fidelity prototype provides simple and clear guidance throughout the user flow and multiple options for viewing and rearranging the selected audio clips.

[View the Niehaus Art Museum high-fidelity prototype](#)



Accessibility considerations

1

Each audio has its own screen with a button to play the clip and a transcript of the audio, which accommodates users who are hearing impaired.

2

The color theme was brightened to appear more inviting and exciting to use. I used the Material Design Color Tool to ensure the colors meet accessibility levels when using white text.

3

All of the icons in the top and bottom navigation bars are paired with text. The same can be said for the majority of the icons used throughout the designs.

Going forward

- Takeaways
- Next steps

Takeaways



Impact:

The app gives users control of what is included in their audio tour experiences.

One quote from a study participant:

"The app is cool. It's easy to use."



What I learned:

At the beginning of the project, designing an app felt overwhelming. Using tools such as user journey maps in the early stages and affinity maps in the later stages of the design process helped organize and narrow the focus of my designs for the app.

Next steps

1

Make updates that address Priority 2 insights in order to enhance the user experience.

2

Create wireframes and mockups for additional screens in the app, such as the profile page and the search feature.

3

Conduct another round of usability studies to test the new updates and new screens.

Let's connect!



Thank you for taking the time to review my first user experience design project. If you would like to discuss my work further or simply get in touch, my contact information is provided below.

Email: maryamaw@yahoo.com

[LinkedIn](#)

[Website Portfolio](#)