

Unit 2: The Human Centered Design Process

Hayoon Choi, Joanne Chui, Christian Diminich, Daniel Noh

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Ecosystem Map

*Our team decided to create an app that could help **live performers to perform, collaborate, and gain recognition due to their loss of a platform** during the pandemic. The ecosystem map was useful in investigating questions of what would motivate users to use this app and how they would feel when they are using it. We used the ecosystem chart to find out what we each knew on the topic, and figure out what areas needed more research, and then highlight those areas of assumptions. For example, we lacked information concerning how music producers used social media to discover new talents or what emotions the users would feel when experiencing our app.*

This process has helped us to visualize our initial steps and learn thoroughly about app ideas. At this stage, we were unsure of the direction we were heading in so it was helpful to think about what our exact expectations were and to narrow down our target audience. Through this process, we found out what areas needed more research and the kind of people we need to interview in order to further direct our app intentions.

Ecosystem Collection

Users and other stakeholders

Who will use this product and what do you know about them?

Who are the other stakeholders (non-users) who influence the design of the product?

What are the relationships between the users and other stakeholders?

- Artists
- Social Media Users
- Live Performers

need more research

- Music Producers

- We intend for Music Producers to use this app to find new talent and artists. However we cannot be sure they will use the app.

Physical objects

What physical objects (tools, toys, cooking utensils, etc.) are associated with the user's collaborative activity?

- Phone
- Props (e.g. Microphone)
- Costumes
- Instruments

Activities

What activities (planned tasks, spontaneous actions/reactions, emerging goals) are associated with this collaborative activity?

- Singing
- Rapping
- Playing Instruments
- Comment
- Viewing (mindlessly)
- Meeting/Finding new people (swiping)
- Voting

Place/Context

Where does this take place physically?
In what social context does this take place?

- Digital Realm
- Any free time

ask friends who use social media where they use social media

Desired Outcomes

What is the goal (or desired outcome) for the users?

What is the goal (or desired outcome) for the other stakeholders?

What does success look like?

- Create new music
- Get famous (for artist users)
 - We are not social influencers.
- Find new artists/music (for audience users)
- Practice skills
- Entertainment/socialize
- Meet new people
- Compete

need more research

Emotions

Is there a cultural component to this collaborative activity?
What emotions are associated with this collaborative activity?

- Excitement
- Competitive (battle)
- Collaborative
 - We intend for the app to be competitive in nature, however we cannot be sure if the users will even use the competition feature.
- Nostalgic (old songs)
 - We are unsure what kind of songs will be popular in this platform.

need more research

Design Trends/Behavioral Patterns

Are there any design trends (typical ways that other remote collaboration tools work) that should be preserved in this design?

Are there any behavioral or social patterns (for example "Zoom fatigue") that it would be helpful to be aware of?

Are there any design trends or behavioral patterns that are specific to this domain?

- Genre picker from Spotify
- Matching system from Tinder
- Livestreaming/"Dueting"/Commenting from Instagram/Tiktok
- Collaborating feature from Smule
- Mindless Scrolling during the pandemic

Secondary Findings

Our team did secondary research on the topics that required more specific data. From the secondary research, we discovered that many people, including the ones from the music industry, relied heavily on social media platforms for recruiting and career development. Since the start of the pandemic, many indie-musicians have been earning money during live performances on social media through asking for user donations on Venmo, QuickPay, or other money transfer apps. Additionally, we learned that many well-known artists today such as Justin Bieber, Halsey, and Billie Eilish were discovered and contacted through social media.

3. Secondary Research

Over the years, the music industry has changed significantly with the help of social media platforms.

- Streaming revenues from the indie sector alone saw an uplift of over 46% and increased its overall music market share to 39.9% in 2017
- In 2016, Spotify's number of paid subscribers globally was 30 million but by 2019 it had more than tripled that figure to 100 million.
- Number of CDs sold decreased as well. In 2008 132 million CDs sold in the UK and by 2018 this figure had fallen to 32 million.

Many artists were found through social media as well. Famous musicians like Justin Bieber, The Weekend, Shawn Mendes, Billie Eilish, and Halsey were discovered on the internet and were reached out by music companies. Even if indie artists don't get that much fame, they can still gain supportive fans and recognition. Since COVID, more indie artists have been relying on social media to continue their career.

- “A lot of our musicians who play in our band are performing concerts live on Facebook and on Instagram, and they’re asking for just tips via Venmo or QuickPay or any other app.”

These bottom points are not specific to musicians

- 94% of recruiters used or planned to use social media in their recruiting in 2019
- 69% of candidates would not take a job at a company with a bad reputation
- 73% of millennials found their last position through a social media platform

Resources:

<https://econsultancy.com/the-impact-of-technology-and-social-media-on-the-music-industry/>

<http://loxo.co/blog/social-media-and-recruiting-everything-you-need-to-know/>

<https://planetradio.co.uk/kiss/entertainment/music/social-media-artists/>

<https://www.npr.org/2020/03/18/817864549/from-symphony-orchestras-to-wedding-bands-musicians-cope-with-the-coronavirus>

Interview Plan

After reviewing the Elito diagram, we decided to interview social media creators, singer/vocalist, and social media users. Daniel and Hayoon agreed to interview a social media user, Christian planned to interview a singer, and Joanne decided on meeting with a social media content creator. Before beginning the actual interview process, we came up with a short introduction to introduce our app idea and interview questions for different demographics in order to gather consistent information.

RESEARCH PLAN

Joanne

if we are able to interview a social media creator:

- why do you make content?
- what do you expect out of it?
- how does it make you feel?

script the opening and closing words

everyone do research on how music producers discover artists,
and if social media is a big influence on how they discover people.

ask friends who use social media
where they use social media

Christian

singer/vocalist

- what is your experience trying to be discovered?
- have you had any experience getting in touch with producers?
how was that experience?

Daniel

social media users

- How do you feel when you use certain social media platforms? (tiktok, instagram, tinder)
- Do you enjoy karaoke?

Hayoon

social media users

- How do you feel when you use certain social media platforms? (tiktok, instagram, tinder)
- Do you enjoy karaoke?

We decided on a loose-interview format where we had a base set of questions for each interviewee type but could move into deeper or further questions based on how the interview was going.

Interview Script:

Introduction:

Hi [interviewee]*, I'm [interviewer] and this is [note-taker] who will be helping take notes for this interview. We're currently designing a social media app that allows live performers and other artists to collaborate and "battle" each other with music; think Spotify meets Tinder meets TikTok. I'm going to ask you a few questions to gauge what you are currently experiencing as a [musician/social media user/content creator] in order to help guide our design process.

*[interviewee] was left as is for some of the interviews for anonymity

Interview Questions:

Can be found below in the interview notes--there are different questions for each demographic (creator, user, artist).

Closing Words:

Do you have any questions or closing remarks?

Thank you so much for your time. We can let you know where the project goes!

Interview Documentation

We noticed that different audiences reacted differently to our app idea. Average social media users were interested to hear about the app but claimed that because they were not musically inclined, they would not be motivated to use it or want to perform in front of an audience. Meanwhile, Simone (singer), seemed intrigued by the collaborative aspect and saw it as a platform that could showcase her skills. In general both Kelly (content creator) and Simone viewed social media as an entertaining way to express themselves and as a creative outlet rather than as a medium for potential career development.

Through our interviews we learned new information that helped us develop our app idea. We found it interesting to see how different users reacted to social media. For example, one of the social media users project that they felt anxious when they went through certain platforms so creating a relaxed environment through our platform became an important goal in our design process. It also became an important design decision for us to think about how users could begin to use this app to become inspired and motivated to create with other people.

Artist Interview

Interviewer: Christian Diminich

Notetaker: Hayoon Choi

3. Primary Research

Interview Notes [Singer/Artist]

Interviewer: Christian Diminich
Notetaker: Hayoon Choi

I interviewed Simone Joy Jones, 4th year vocalist in the Carnegie Mellon School of Drama.

Introduction

Hi Simone, I'm Christian and this is Hayoon who will be helping take notes for this interview. We're currently designing a social media app that allows live performers and other artists to collaborate and "battle" each other with music; think Spotify meets Tinder meets TikTok. I'm going to ask you a few questions to gauge what you are currently experiencing as a singer in order to help guide our design process.

Questions and Answers

1. What are your experiences breaking into the music industry?
 - a. Has had conversations with producers and various artists, but has mainly focused on school of drama exercises
 - b. CMU School of Drama is extremely time consuming, and has many restrictions associated with enrollment
 - c. Most entertainment experiences are collaborations with musically/dance performing friends, has starred in numerous live performances at CMU Theater and privately.
2. Do you use social media in any way to further your career?
 - a. Uses Instagram
 - i. Frequently posts about musical collaborations/freestyles with fellow musicians/drama students
 - ii. Posts also include some live performance clips
 - iii. Promotes her new EP's using instagram videos and hashtags
 - iv. She notes that instagram is more socially focused rather than professionally oriented
 - b. Do you have LinkedIn? (Followup Question)
 - i. Simone Jones did not have LinkedIn, saying "I wish the music industry was as black and white as regular college internships. Most of the time, you have to know someone who is in the 'in' social circle to get noticed"
 - c. Youtube

- i. There are some short video clips of Simone performing on YouTube, and even one music video posted 10 months ago
- ii. Mentions that she does not fully take advantage of YouTube, but notes that some capabilities are used by her successful colleagues

3. What are important ways you promote your image/music?

- a. Artist Collaborations
 - i. Collaborates with fellow drama students and Pittsburgh musicians and choreographers to create EP's, unique song renditions, and even live short musicals
- b. Vimeo Application
 - i. Also promoted on Vimeo app on the Carnegie Mellon School of Drama page
 - ii. Not much traffic/views overall
 - iii. Not much interaction or live capabilities on vimeo, just videos

Interview Observations

It was clear to me that drama classes, vocal practice, and personal projects are more important to Simone than landing a contract with a recording studio (for example), but I still managed to pick up useful information. From the beginning, Simone reacted positively when learning about our application concept and seemed immediately intrigued. What especially stood out to Simone was the interactive functions of our app, namely the singing battles and fun collaborations that would be possible. Her enthusiasm with these functions leads me to believe that a vocalist would love the opportunity to broadcast his or her skills in a virtual setting. Simone seemed to find the LinkedIn question funny, because as a business student she may have expected the comment coming from me (LinkedIn does not seem very popular amongst young artists). Although social media apps such as Instagram are common in her day to day life, she does not often use the application to boost her career necessarily, and uses the app more socially than professionally. She feels as though there should be a more equitable, fair, and entertaining way for aspiring artists to showcase their skills and projects in real time (and with friends).

Social Media User Interview [1]

Interviewer: Hayoon Choi

Notetaker: Joanne Chui

Interview Notes [Social Media User]

Interviewer: Hayoon Choi
Notetaker: Joanne Chui

I interviewed a social media user who is a 2nd year design student at CMU.

Introduction

Hi Catherine, I'm Hayoon and this is Joanne who will be helping take notes for this interview. We're currently designing a social media app that allows live performers and other artists to collaborate and "battle" each other with music; think Spotify meets Tinder meets TikTok. I'm going to ask you a few questions to gauge what you are currently experiencing as a social media user in order to help guide our design process.

Questions and Answers

1. What social media platform do you use and what are the emotions that you feel when you are using them?
 - a. Mostly uses instagram
 - i. Feels "excited and anxious" because they follow a lot of artists
 - ii. Cool to see other people's work but also compares their work with social media artists
 - b. Also uses facebook and discord for group chats
 - c. Feels relaxed when they use Reddit
 - i. Reads theories on topics and they're interested in
 - d. Youtube
 - i. Mostly to watch channels they are subscribed to
 - ii. Also listens to music on youtube
 - e. Emotions vary, depending on the specific content that they see
2. Why do you use them?
 - a. Searching for inspiration art and artists
 - b. Connecting/Staying connected with friends
 - c. Using social media leads to staying up with current events and trends
 - i. Even if reports aren't always factual they are interested in other people's reactions to events.
3. Where are you when you are using them?"
 - a. Usually at home!
 - b. "I listen to music 24/7 or whenever I want to get a break"
 - c. Checks discord whenever they get an important message from someone and they aren't busy at the moment.

Interview Observations

From the interview, it seemed like she uses social media mindlessly, and had to recall what apps she uses frequently. Social media seemed to have become a natural part of her daily routine. There were a couple of pauses and "umm" in between the sentences when I asked her about the emotions that she feels. However, we sensed the certainty when she was mentioning about the places she is at when she is using social media. One thing that was surprising was that she felt stressed when looking at other artists' works. Although this isn't in a music context, I realized that our app could unintentionally stress indie artists out and make them feel inferior by showing them other potentially talented musicians.

Social Media User Interview [2]

Interviewer: Daniel Noh

Notetaker: Christian Diminich

Interview Notes [Social Media User]

Interviewer: Daniel Noh

Notetaker: Christian Diminich

I interviewed a social media user who is a 5th year architecture student at CMU.

Introduction

Hi [interviewee], I'm Daniel and this is Christian who will be helping take notes for this interview. We're currently designing a social media app that allows live performers and other artists to collaborate and "battle" each other with music; think Spotify meets Tinder meets TikTok. I'm going to ask you a few questions to gauge what you are currently experiencing as a social media user in order to help guide our design process.

Questions and Answers

1. What social media platforms do you use and how do you feel when you are using them?
 - a. She asks "Do you want me to list *all* of them?" so we asked her for just the top three -- turns out she only uses three main ones anyway.
 - b. Instagram
 - i. Instagram Reels
 - c. Snapchat
 - d. Facebook
 - e. She *refuses* to use TikTok
 - i. Jokingly disgusted facial expression
 - ii. Why not?
 1. It seems so Gen Z... and dumb *laugh*
 - f. And how do you feel emotionally? "Apathy." (Response transitioned into next question)
2. Why do you use social media?
 - a. Snapchat
 - i. "Honestly... SnapChat is mostly dead, I only use it to respond to people and use the group chat for my friend group"
 - ii. She uses it to respond to 1-5 people
 - d. Instagram
 - i. Mostly uses it to send memes to people
 - ii. Follows food, design, and meme pages and friends
 - iii. These days instagram is mostly social activism and nobody posts about themselves anymore (all the content is in the stories now).
 - iv. She also uses the Reels feature!

1. She likes how the reels are geared to the people she follows, so she gets a lot of food and design reels.

e. Facebook

- i. Also mostly for memes
 1. Specifically Asian memes from Subtle Asian Traits
 2. She also uses Facebook for Messenger.

- f. She mentions how she has anxiety and thinks that Snapchat messages seem to be the least urgent, Instagram second, and Messenger/Facebook/Messages most urgent. She likes the fact that she doesn't feel anxious when she opens Instagram and Snapchat.

3. Where are you when you are using them?
 - a. She's most on social media (all of them) when she is about to go to sleep and when she wakes up
 - b. She also checks social media whenever she gets a message
 - c. "I'm usually really busy so I'm not usually scrolling through social media, but today I wasn't so I was on Facebook just now!"
 - d. "I also use social media when I'm on the toilet"
4. Would you be interested in our app, where you, as a user, can scroll through and discover new artists and music?
 - a. "Personally...? No... Mostly because I'm not really into experimental music"
 - b. "I'm also not that musically inclined..."
 - c. Boyfriend next to her said he would! But he would never make anything...

Interview Observations

From our primary observations, we were slightly surprised by her reaction to TikTok. A lot of social media trends, especially during the pandemic, have started in TikTok, so input from a non-TikTok user was appreciated. She seemed to imply that she wasn't too attached to her social media when her first response to "what emotions do you feel?" was "apathy". In this interviewee's case, she only spent time on social media when she had absolutely nothing to do, in the bathroom, or in bed. While it was unfortunate that the interviewee thought that she would not use something like our app idea, it unfolded an important idea—that not all social media users *care* to find new music or musicians! It could be an interesting challenge to create a platform for users to connect with existing musicians they like!

Content Creator Interview

Interviewer: Joanne Chui

Notetaker: Daniel Noh

Interview Notes [Social Media Content Creator]

Interviewer: Joanne Chui
Notetaker: Daniel Noh

I interviewed a social media content creator who is a junior in the Tepper School of Business.

Introduction

Hi Kelly, I'm Joanne and this is Daniel who will be helping take notes for this interview. We're currently designing a social media app that allows live performers and other artists to collaborate and "battle" each other with music; think Spotify meets Tinder meets TikTok. I'm going to ask you a few questions to gauge what you are currently experiencing as a social media user in order to help guide our design process.

Questions and Answers

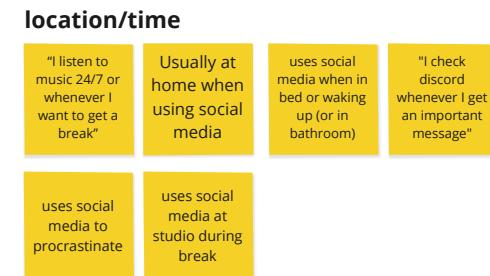
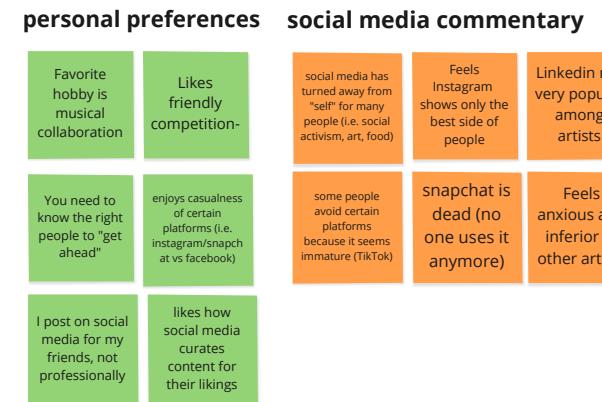
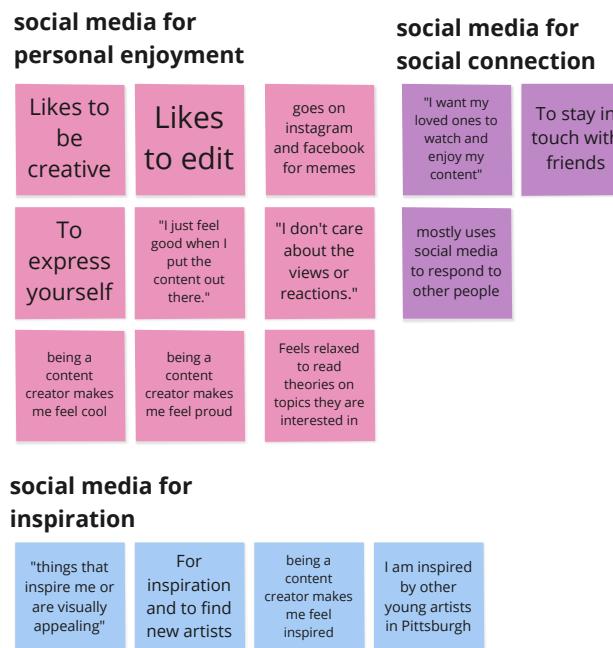
1. What social media platforms do you create content for?
 - a. Youtube and Tiktok
 - i. Vlogs
 - ii. Fashion videos
 - b. Tiktok
 - i. Dance videos
2. Why do you make content?
 - a. To express herself
 - b. Being creative
 - c. She enjoys editing content
3. What do you choose to film?
 - a. "Things that inspire me or are visually appealing."
 - b. She comes up with an idea first and then films clips based on the idea.
4. What do you expect from posting on these platforms?
 - a. "I want my loved ones to watch and enjoy my content."
5. How does being a content creator make you feel?
 - a. Inspired
 - b. Cool
 - c. Proud
 - d. "I just feel good when I put the content out there. I don't care about the views or reactions."

Interview Observations

It seems that Kelly does not feel pressure to constantly produce content, and does it more for fun than for fame or likes. To her, social media is a creative outlet where she can express herself and feel good about herself. In the context of our app idea, we might not want to specifically target people who are serious about succeeding in the music industry, but also regular people who just want to have fun singing/rapping.

Affinity Diagramming

With our interview findings, we pulled out important quotes and mentioned topics and categorized them based on their similarities and differences. By categorizing, we saw that our interviewees usually use social media for three main reasons: inspiration, personal enjoyment, and social connection. We also gained insight on the context in which users use social media and the user's personal attitudes towards these platforms.



Pain-points and Opportunities

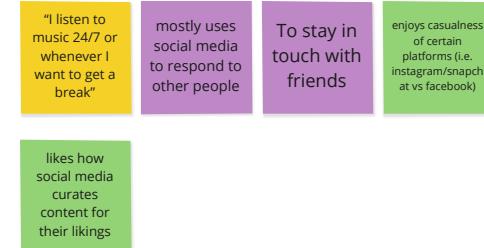
Through our affinity diagram, we extracted the points that could potentially help our digital product and reorganized them as either opportunities or pain points. For opportunities, we saw how people wanted to use social media for casual interactions, to build connections with others, to use anytime of the day and to be able to access contents that are personally curated to them. Meanwhile for pain points, we wrote that people feel apathetic or mindless, don't always want to discover new artists, and sometimes feel put down instead of being inspired. By working on this exercise, we were able to get a grasp on what the users specifically want. We settled on the idea of creating a platform that can connect people, isn't stress-inducing, engaging, and is targeted towards both new and existing artists. We also liked the idea of the app also being accessible to casual users, ones who are not necessarily active in creating content for social media.

Pain-points



- users feel apathetic or mindless when they use social media
- artists feel that they need to know the right people to get ahead
- users don't always want to discover new
- artists (and users) feel put down instead of being inspired

Opportunities



- users want to connect with people on social media
- users want to feel relaxed and have casual interactions with social media
- users want to access content at anytime of day (i.e. Instagram content depends on hours the people they follow post)
- users want content that is curated to them

Insights

- create a platform that can be accessible at all times and places
- create a platform users can connect with people (both new and old)
- create a platform that is fun to use and isn't stress-inducing
- create a platform that allows for inspiration but also doesn't bring down users (lose morale)
- create a sense of engagement through the platform
- create a platform for both new and existing artists
- create a professional platform that is also engaging

Scenarios

Each team member individually created three personas and scenarios to discuss with the group. This process allowed us to think more specifically about the habits and wants of different user groups. We began with a list of “How might we...” which we derived from our affinity diagram and developed the ones that piqued our interest into storyboards.

1. “How might we...”

- How might we get users to connect with other people?
- How might we create a relaxing environment on the platform?
- How might we enable users to access content (new for the user) at any time of day?
- How might we curate content specifically for each user?
- How might we create an *engaging* platform that prevents users from “scrolling mindlessly”?
- How might we curate content for users that don’t want new music (or limited new music)
 - How might we create a platform that allows existing artists to seamlessly share their content?
- How might we *inspire* users rather than *put them down*?
- How might we create fun, competitive, and interactive user experiences?
- How might we get non-artists to start creating music?

2. Creating scenarios

Daniel

Scenario 1:

Jordy is an artist looking for a way to create and share new music with the world. He's a great lyricist and vocalist, but not confident in his producing skills. He doesn't necessarily have a big following yet and he isn't sure how to get recognized. He overhears his friends that are on this new music app that helps them discover new artists. He downloads and joins the new music platform and records his song and uploads it. The app, using tags and references (i.e. other similar singers) that the artist posts, shares the artist's music with users and producers that enjoy similar content. Through this interaction, Jordy is able to share his music and find users and producers that will help engage with the song and the users are able to find new artists and music.

Scenario 2:

Elliot is a musical actor who is looking to create during the pandemic and is struggling to find other people to perform (digitally) with. They want a platform that they can find like-minded performers/artists and also an audience to see their work. The new platform allows the performer to "match" with other artists by allowing them to listen and watch a snippet of a pre-recorded performance (optionally with lyrics and a song title). When the performers match, they can create music with each other and perform live right on the app. The users (non-performers) will get notifications about artists that they currently follow and can watch the live performances from their phones. They can also donate/subscribe for smaller perks.

Scenario 3 [How do we help people discover new artists]:

Taylor is looking for a way to find new music. She is sick of all of her previous playlists, her Spotify's "Discover Weekly" didn't do her music taste justice this week, and youtube seems a bit too much to sift through. Without any other ideas Taylor looks up, "new music app" and finds this app. Once she's in the app, she is given an opportunity to choose her current favorite artists and music genres. She is then prompted to choose if she is on the app to find new music or to listen to her current favorites. Once she chooses "New Music", she is shown singers and artists she hasn't seen before. She then shares the discovered music with her friends that she knows will enjoy it. As the first song ends, she discovers that there is a Live performance section. From here, she is able to visit multiple artists who are all performing live on the app. It also displays if any of the artists that she follows have performed with other artists. From this she is able to branch out and find all kinds of artists that are up her alley!

Hayoon

Scenario 1:

Jack is an indie musician who misses collaborating with other musicians in person. In order to make the situation a little better, he downloads the app in an attempt to make new connections with other artists and to practice his skills. He puts down the genre that he's interested in and creates a profile. He gets matched with a musician named Harry and they sing a duet together. They agree to follow each other on social media and keep in touch.

Scenario 2:

Jennifer is tired of listening to the same music during quarantine and wants to find a new musician. She downloads the app and browses through the artists using the tag system. She finds a new artist named Jack that she really enjoys listening to and decides to follow him on social media. She keeps up with his new music and attends the live collab/battles. By attending them, she also finds other talented musicians that she later follows as well.

Scenario 3 [How might we get casual users to create new music]:

Nick's friends dared Nick to create a profile on the app and swipe right on everyone. He is forced to join the app and perform even though he is shy about rapping live in front of an audience. He soon gets a match and rap battles another artist. He ends up enjoying his time and encourages his friends to join as well. Later, he gets a match with one of his friends and they rap battle in the same room. He decides to keep his profile to continue battling the rappers on the platform.

Christian**Scenario 1:**

Jonathan is an aspiring vocalist studying in the local School of Drama. None of his friends are musicians, and he wants to collaborate with local Pittsburgh artists. Luckily once Jonathan searches for other Pittsburgh vocalists, dozens of talented musicians appear and are suggested to him. He soon realizes that it's easy to learn from other artists through collaborative chat rooms, as well as fun competitive games that are offered through our app. Now, Jonathan is focused on improving his profile so that he can learn from the best that Pittsburgh has to offer. He realizes that his new collaborative song recordings and posts can be used to promote his image/brand as an artist, so he quickly enhances his profile to stand out.

Scenario 2:

Rockell wants a way to sing karaoke with her friends in a virtual environment. Since TikTok doesn't cut it, she downloads the app and explores all the new/old music available. There are numerous minigames to choose from besides karaoke, and she quickly invites her friends to join her. Rockell is now able to rap battle friends, sing over new instrumentals, upload her own music, or even simply rock out to old school karaoke! She now has hilarious karaoke recordings of her and her friends singing together, and even though it's cringy, she could not be happier with the experience and new music that comes along with it.

Scenario 3:

Harold is a music producer, looking for the most talented new content creators on behalf of his recording company. With LinkedIn being completely inadequate for the job, he downloads the app to see if he can spot any aspiring talent. He soon finds a thriving community of singers, musicians, rappers, and common users all creating unique content. Harold follows the hottest new content creators, and watches snippets of their most viral posts. He can match with artists, follow new profiles, and even search locally to find aspiring talent and viral postings.

Joanne**Scenario 1:**

Haley is a high school student who enjoys listening to music and singing for fun. She has been feeling extremely shut in during quarantine and downloads this app because she is bored. Feeling shy, she decides to spectate at first, and loves commenting and interacting with others watching the sing-offs. After building more confidence and feeling comfortable using the app, she decides to put herself out there and participate in a sing-off. Haley loves that she's been able to discover new songs through this app, and is entertained during quarantine.

Scenario 2:

Danny is a soundcloud rapper that has been feeling uninspired and has writer's block. Hearing about this app from his fellow soundcloud rappers, he decides to check it out to see what other rappers are creating and also do some freestyle rap battles just to get his mind flowing again. He loves how casual it is, and getting support and hype from the comments section really motivates him to start writing more songs.

Scenario 3 [How might we enable collaborative music]:

Judith is a DJ/producer and has been looking for ways to promote her beats. She discovers this app and uploads her instrumental. Her friends initially rap/sing over it, and as people watch those battles her instrumental starts to become popular, and more and more artists start using her sound. She starts watching a lot of the rap battles that use her sound, and stumbles upon a rap battle where she really likes the flow. Judith reaches out to the rappers to try to produce a full song.

Storyboarding

We then discussed the most interesting and insightful personas and each chose one to create a storyboard for. We tackled three scenarios that explained different types of targeted users. We focused on collaborative, casual, and discovering aspects and came up with three “how might we” questions to help guide our app motivations. Those questions were: “How might we help people discover new artists?”, “How might we enable collaborative music?” and “How might we get casual users to create new music?”

We also switched around the storyboards with each other to see how another person may interpret the scenarios we wrote out. Hayoon drew a scenario that Daniel wrote, Joanne drew a scenario that Hayoon wrote, and Daniel drew a scenario that Joanne wrote.

Storyboard 1

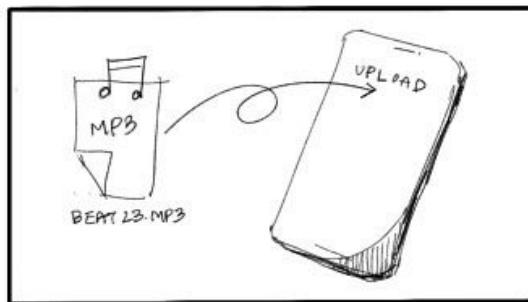
Drawn by Daniel

How might we...

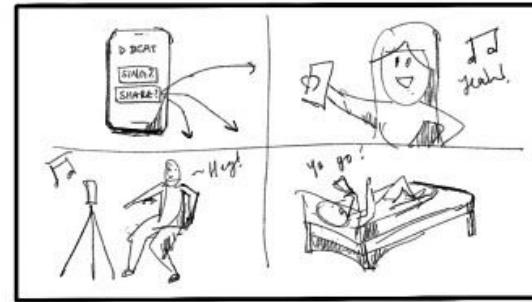
Enable collaborative music?



Judith is a DJ/producer looking for a way to promote her new beats.



She finds this new app that her friends find new music with and uploads her new beat on the app.



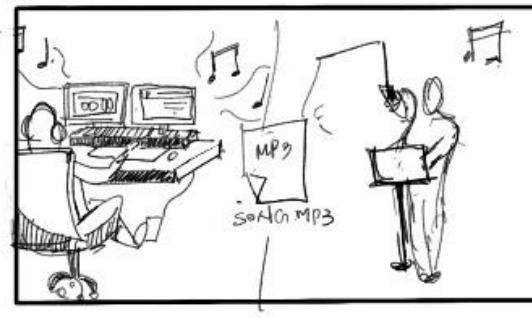
Her friends sing and rap over the new instrumental and other users of the app see it.



Judith scrolls through the new collaborations and loves all the creativity in the community.



She picks a specific video/audio and reaches out to the singer.



She ends up connecting with him and they create and release a full song using the instrumental.

Storyboard 2

Drawn by Hayoon

How might we...

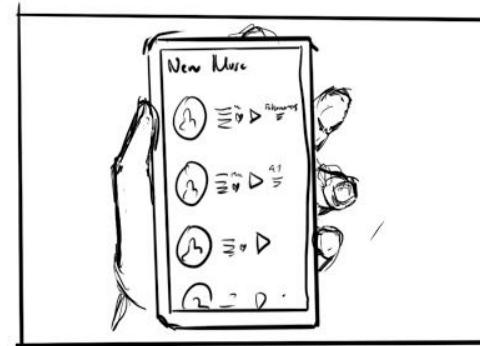
Help people discover new artists?



Taylor is sick of her previous playlist and existing apps (spotify, youtube) don't satisfy her



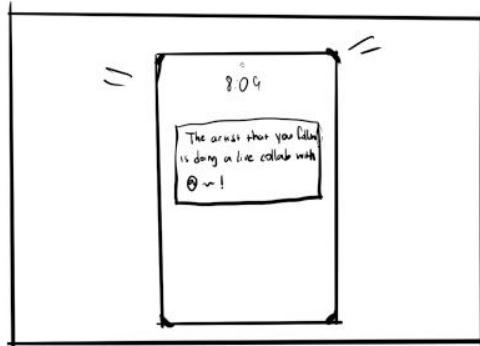
Without any other ideas Taylor looks up, "new music app" and finds this app



Through this app, she is introduced to new artists that she hasn't discovered before



She then shares this app with her friends that she knows will enjoy it



It also displays if any of the artists that she follows have performed with other artists



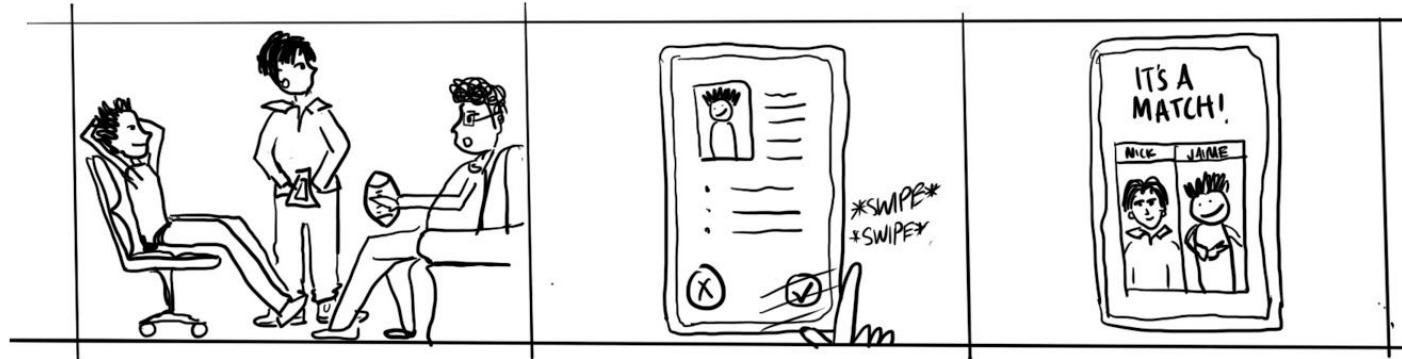
From this she is able to branch out and find all kinds of artists that are up her alley!

Storyboard 3

Drawn by Joanne

How might we...

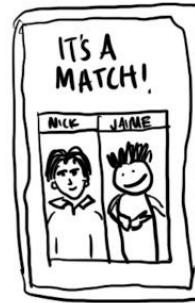
Get casual users to create new music?



Nick's friends dared Nick to create a profile on the app and swipe right on everyone.



He is forced to join the app and perform even though he is shy about rapping live in front of an audience.



He soon gets a match and rap battles another artist.



They rap and he loves the hype he's getting from the spectators.



He decides to keep his profile to continue battling the rappers on the platform.

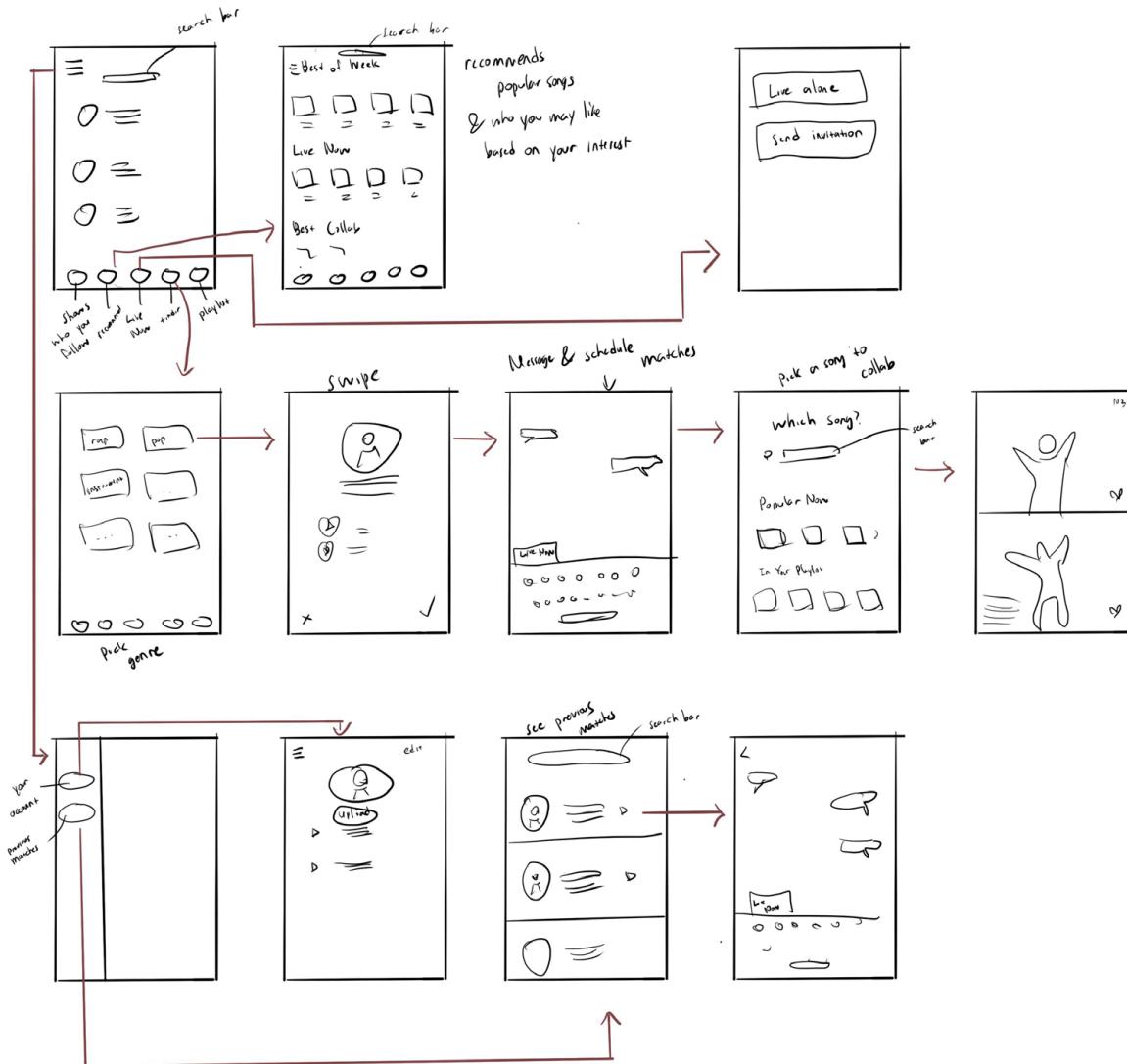


He encourages his friends to join as well

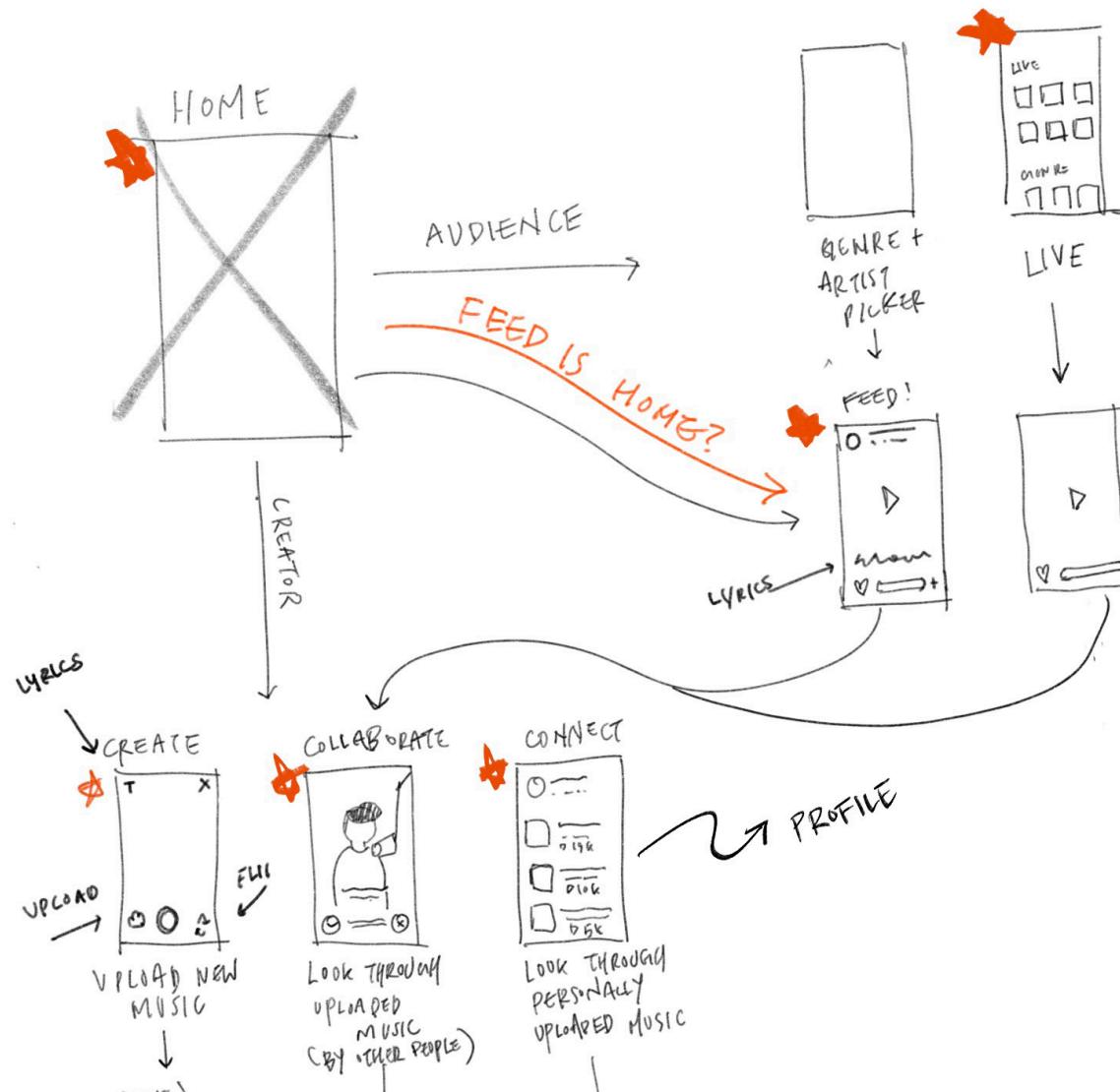
Wireframes

The wireframes were created individually to hopes to come up with four completely different ideas of what this app could be. We then put the wireframes into one Miro board and discussed, through sticky notes, which parts of which wireframe was the most intriguing. This discussion eventually led to the development of our low-fi prototype.

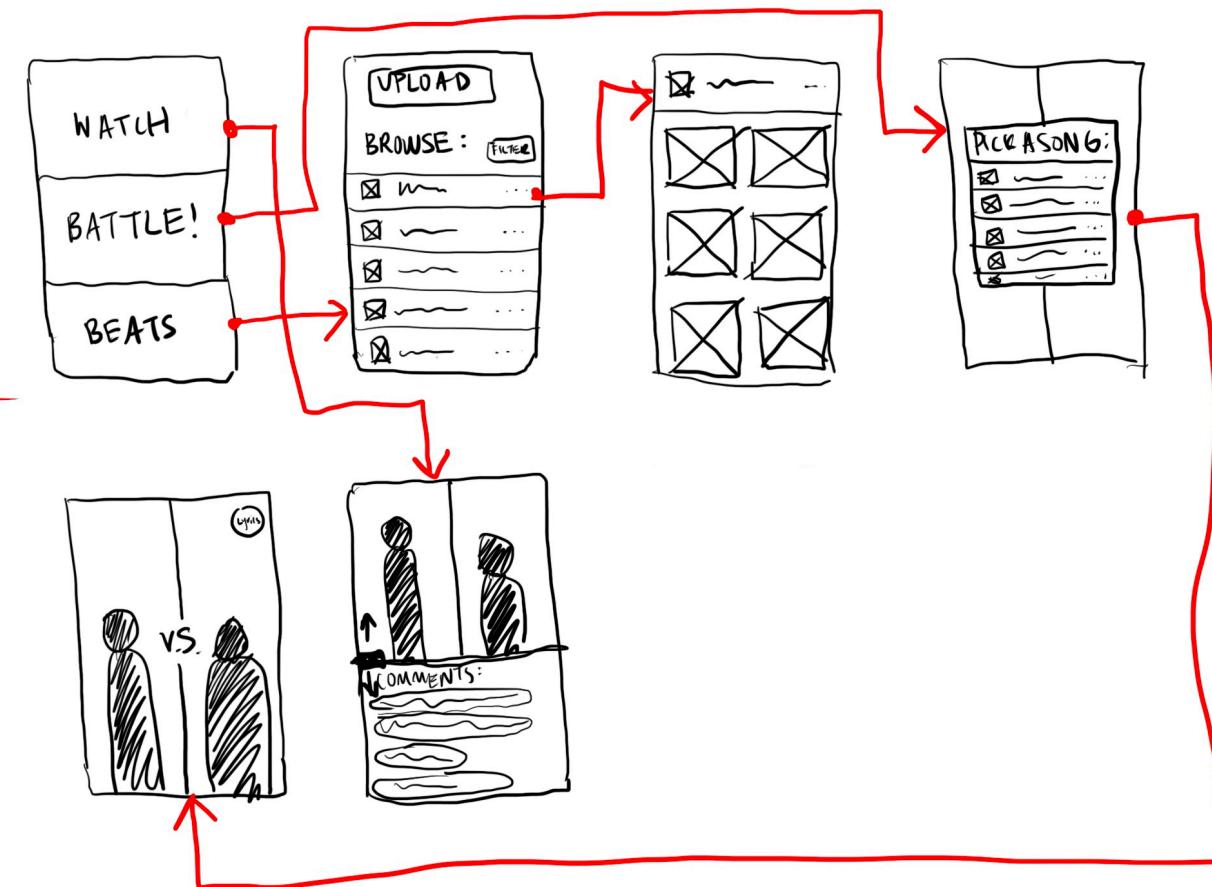
Wireframe 1



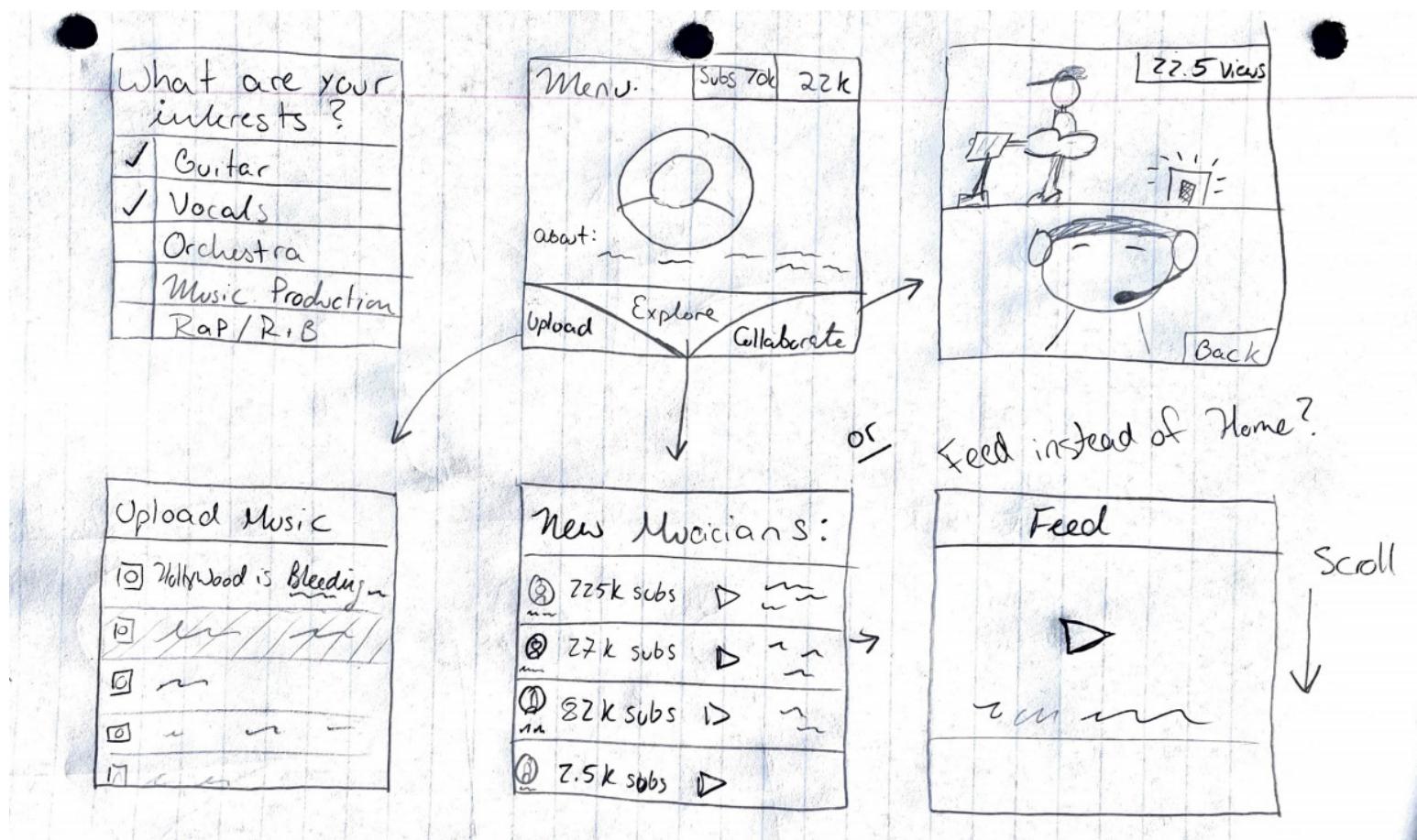
Wireframe 2



Wireframe 3



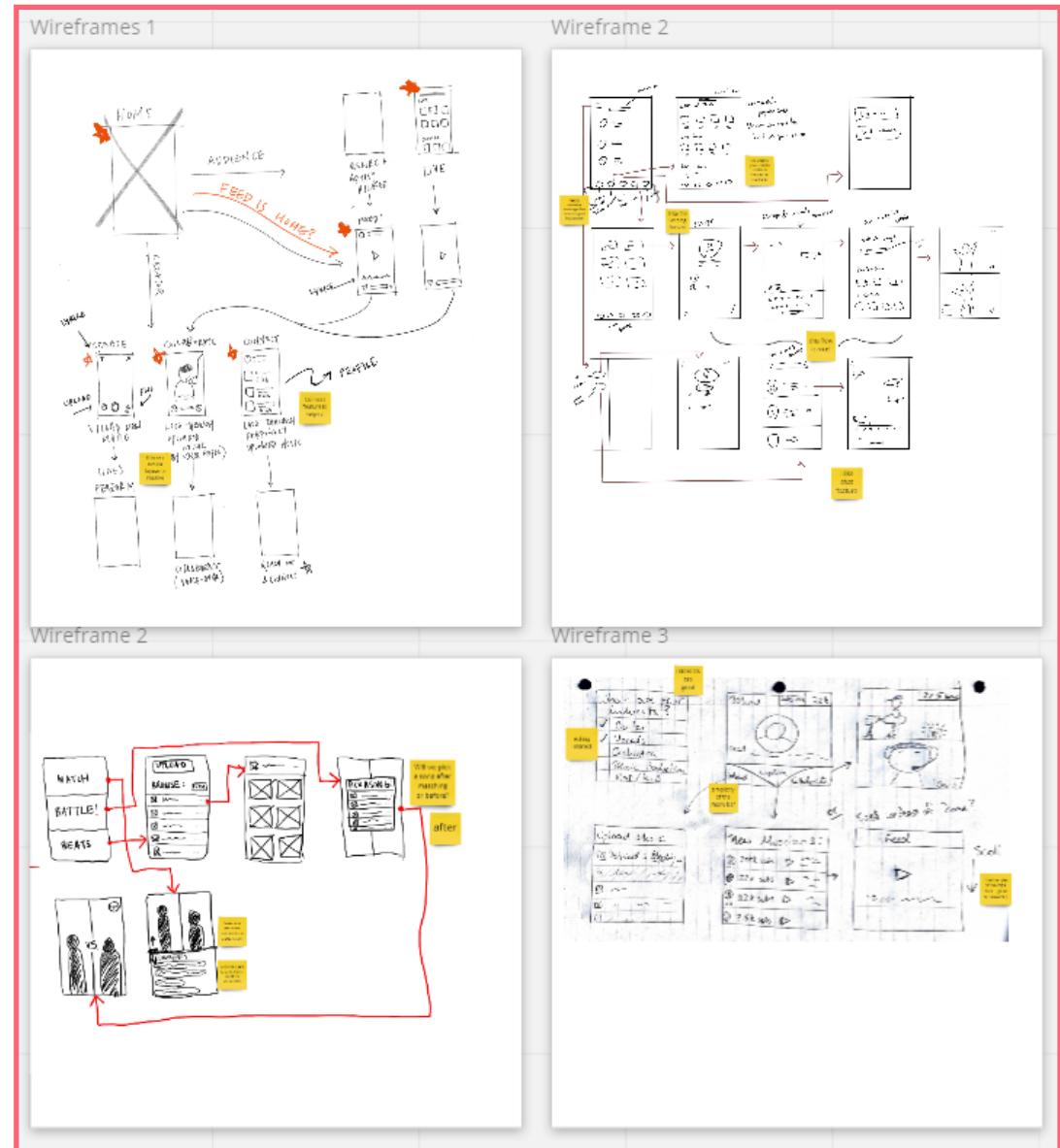
Wireframe 4



Lo-Fi Prototype

At this stage, we focused mostly on the usability and functional aspects of our digital product, and having an efficient information architecture. To do this, we decided the main features of the app and designed high-level prototypes for only those screens. During this process, we discussed how we could create a natural progression that was intuitive to users, and figured out the features that were unique to our app.

When we met to discuss our wireframes, we compared our different ideas and discussed what features we liked and disliked. We picked and chose specific screens we deemed necessary to make this a working platform.



Browse

Live Now

Just for You

Popular Country

Popular Country

Profile buttons: browse, battle, create, playlist, profile

Match/Collab/Battle

Mike Moment 23, Country

Following Message

Uploaded Battles Playlists

Song Title Description

Profile buttons: browse, battle, create, playlist, profile

Genre Picker

What kind of music do you like?

Country Pop Instrumental

R&B Rap EDM

Showtunes Opera Jazz

Classical Rock Alt Rock

Profile buttons: browse, battle, create, playlist, profile

Create/Go Live

T X

+

Profile buttons: browse, battle, create, playlist, profile

Profile

Jesse Smith 19, Country

Hi I'm Jesse and I love...

Edit Profile Battles Playlists

Uploaded Battles Playlists

Song Title Description

Profile buttons: browse, battle, create, playlist, profile

Usability Testing

We were originally doubtful of giving out the test on our lo-fi prototypes, however, it still allowed us to see new perspectives and gave us an idea of how it is to experience our product with fresh eyes. For example during the usability test, it was mentioned that the term “battles” can be confusing and was suggested to change the term into “Jam Sessions” for more clarity. Although we ended up keeping the term “battles,” we decided to use icons to help guide the users. Also another thing that we noticed was that the participants often knew how to use our product based on their previous experience with existing social media designs. For example, the profile and swiping features were easily recognized by all the users.

Usability Testing

Step 1: Recruit Users

Users selected for Virtual Usability testing are Reina Liang, Cheney Price, and Peter Koltas. We recruited these participants because they are all college-age and frequent social media users. In addition, Reina is very savvy with music-discovery applications such as Spotify and SoundCloud, making entertaining music playlists on a regular basis.

Step 2: Write tasks/activities for users to do

Task Criteria Given to all Participants.

Context:

You are a typical college age student (like yourself), and you are looking to expand your musical taste in an entertaining way. Your friend told you about this new application, so you decide to download and give it a try.

Context 2 (Reina):

Imagine you are an aspiring young music creator, and you are seeking ways to promote your image/brand and have your music heard. Your friend tells you about this new musical collaboration app, so you decided to download and give it a try.

Tasks:

(Onboarding Screen)

1. Select your musical preferences.

(Home/Feed Screen)

2. Explore the "Just for You" section
3. Click your "Profile" tab

(Profile)

4. Tell me about Jonas Smith's current profile
5. Find the battle button.

(Battle Screens)

6. Find an artist to Battle! (Help participant understand the swipe if necessary)
7. Look through Mike's Profile and video posts
8. Click on "Message" button to chat with Mike
9. Find "Go Live" button for a sing-off

(Recording Screens)

10. Start recording and see how you look next to Mike

Note: The directions to participants were slightly adjusted based on their varied observations and progress displayed. All participants had the opportunity to view nearly all available screens of our low-fi prototype.

Step 3. Collect Feedback (Notes follow the tasks given outlined above)

User: Cheney Price

Test Giver: Hayoon/Daniel

Note Taker: Joanne

- User easily notices the labeled squares and clicks one of his favorite genres
- On homepage, user first tries to scroll down (which is an implied feature)
 - User finds the "Just for You" Section and even clicks on the right hand arrow to view more suggestions
- User instructed to click "profile tab"
 - Easily found, user mentions that the profile looks similar to Instagram
 - User says he can see Jonas' name, uploaded clips, and edit profile button
 - User clicks on Battles button next
- User sees Mike Momsent, and clicks on arrow to play video
 - Video doesn't work in lowfi, but test giver takes time for user to notice swipe features
 - User finally begins to swipe, mentioning the similarity to Tinder
 - On Mike's Page user finds message button and chat features
 - User says chat looks very familiar
- User goes live and easily uses the recording feature, user is asked for final thoughts
 - Believes similarity to other applications makes app easy to navigate
 - Probably would not use battle feature in a live public setting
 - "I kinda like the idea of exploring live music"

User: Peter Koltas

Test Giver: Joanne

Note Taker: Hayoon/Christian

- User #2 selects rap, R&B, and Jazz as favorite music genres
- User does not know what would be playing on "Live Now" section
 - User finds just for you, and sees Jonas Smith's post with the lyrics at the bottom
 - User tries to click implied "Play" button, then navigates to profile
- Profile appears familiar to user, and very similar to other social media apps
 - User asks about the function behind the "battles" tabs
- Battle button selected
 - Attempts to select play button, unsure of what video would play
 - Likes the swiping feature, and easily explores Mike's profile
 - Enjoys how easily it is to view Mike's previous work and style
 - Mentions how Mike's profile looks like his personal Instagram
- Peter finds and executes the live function perfectly, and says the recording screen/button looks like snapchat

- Final thoughts are that it is easy to find other music, likes the profile sections, but would also perhaps like to see private chatrooms also as opposed to only live "battles"/collaborations

User: Reina Liang

Test Giver: Christian
Note Taker: Daniel

- Reina selects EDM, Rap, and Rock as what kind of music she likes
 - User tries to select the play button, but soon finds the correct "just for you" section
 - User likes how the main screen is split into sections, similar to other applications
 - Reina became curious about the navigation buttons at the bottom of the screen
 - Entering feed page, Reina tries to give Jonas Smith a "like" on his music video
 - (it may have been good to include a detailed picture to make this feed screen clear)
 - After selecting the battle key, Reina begins clicking the Musical note button instead of swiping
 - After being told, Reina was swiping with ease and managed to find at Mike Momson's other profile
- Reina likes the Instagram feel, and wishes she could watch a real performance
 - Reina describes Mike as 23 years old, into country music, possibly a singer, and has many thousands of song views on his feed.
- After clicking through the simple go live and record features, Reina gives her final thoughts:
 - She loves the simplicity and how it is not overcrowded
 - Loves how she gets many options at once, such as different music categories, uploads, and song browsing capabilities

Step 4. Teams consolidate feedback into a plan for design improvements (students do NOT need to implement the improvements!)

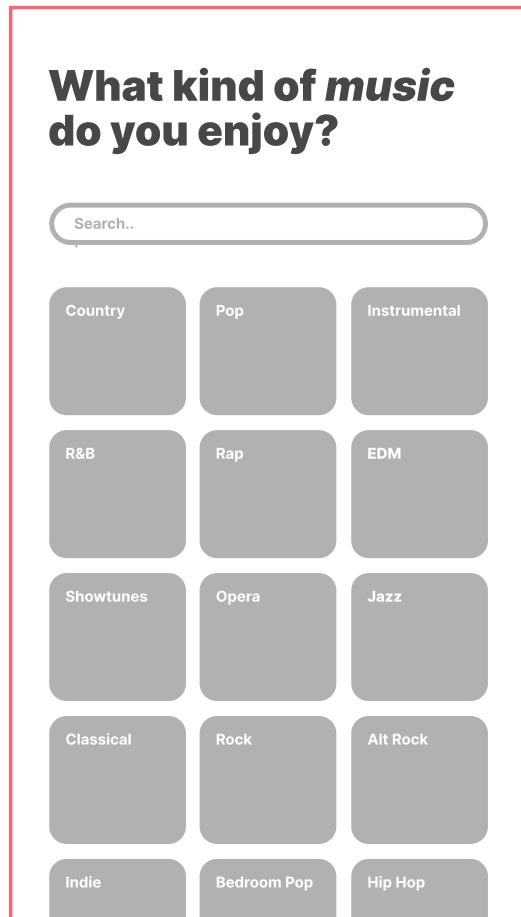
Plan/Observations for Improvements:

- Its necessary to add clear progress or back buttons, as a lot of the usability testing was done by the tester
- We need to make our buttons and functionalities more obvious to the user (i.e. "Battles")
- Renaming our musical collaborative space from "Battles" to "Jam Sessions" is a potential option
- Some users mentioned private collaboration spaces which may be a good idea

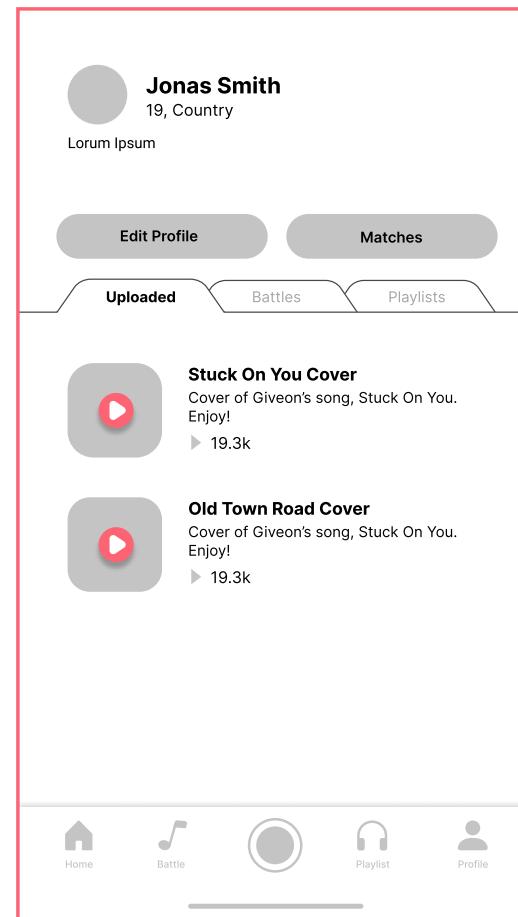
Mid-Fi Prototype

At this stage, we focused more on finalizing the aesthetic direction of the screens through being more detailed and meticulous towards the design features and grid layout. These screens use the same path as the designed wireframe.

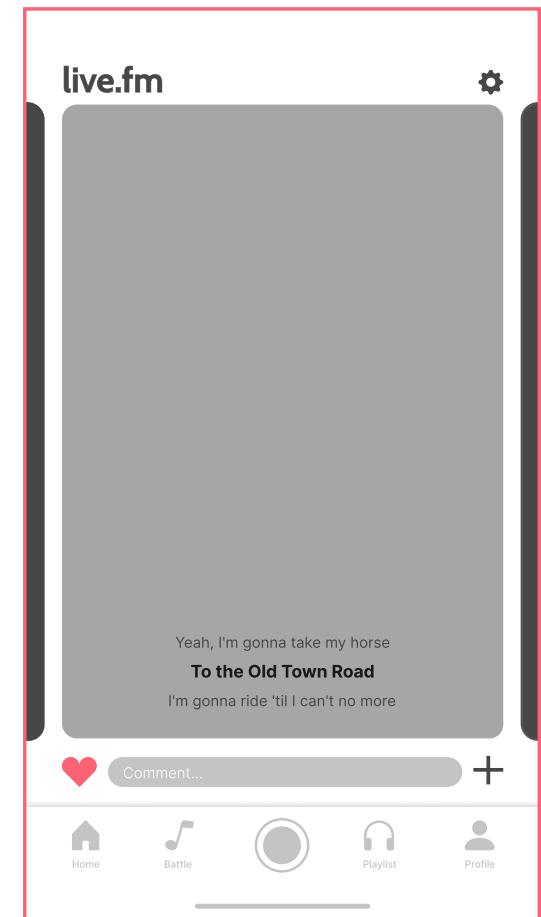
Onboarding



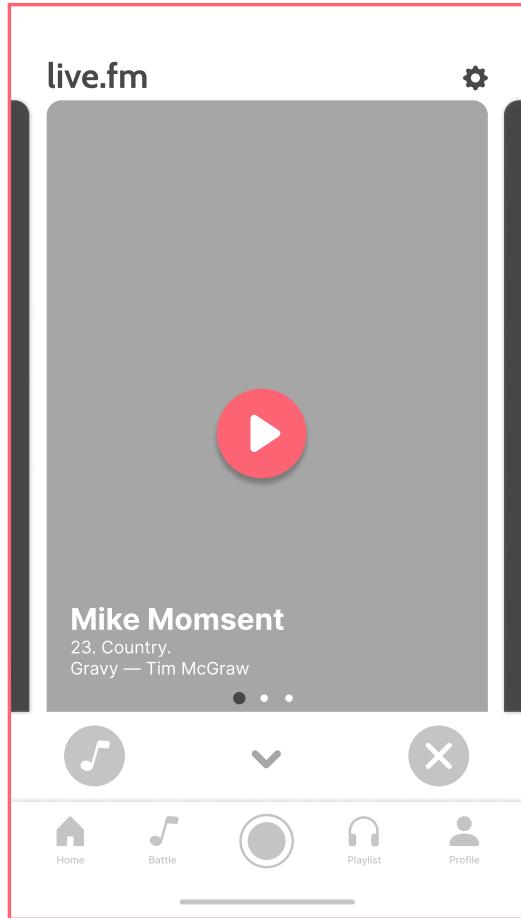
Profile



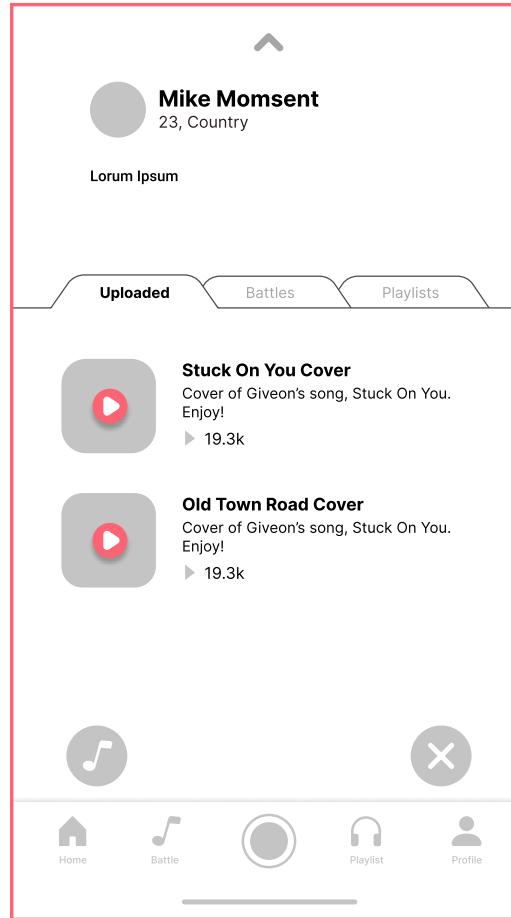
Discover/Listen



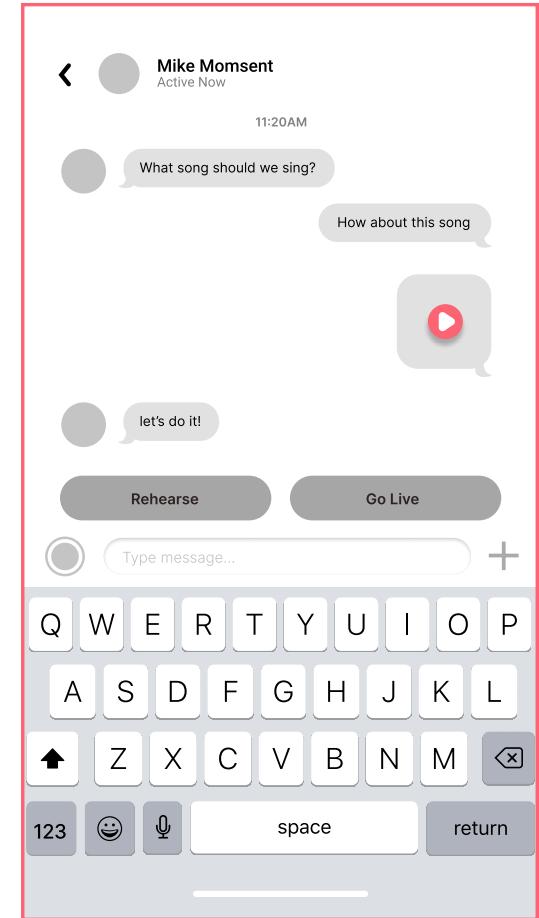
Battle/Match



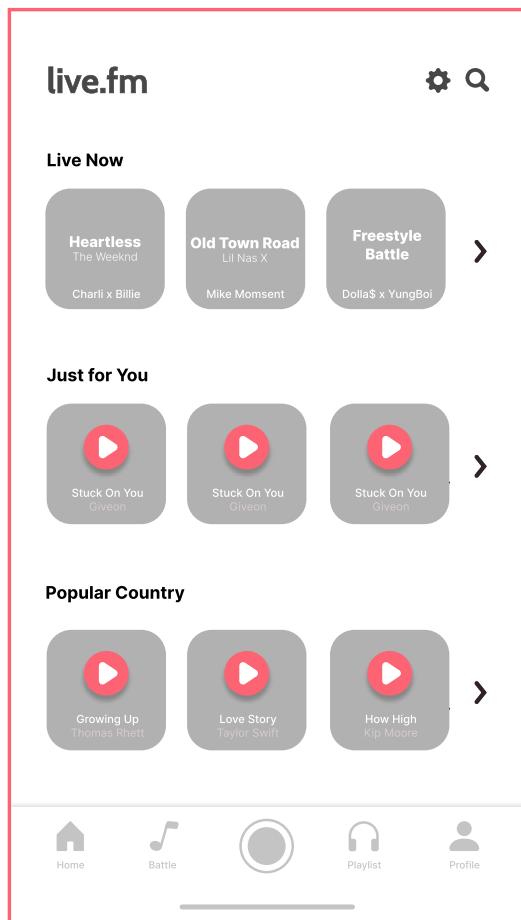
Battle/Profile (Swipe Down)



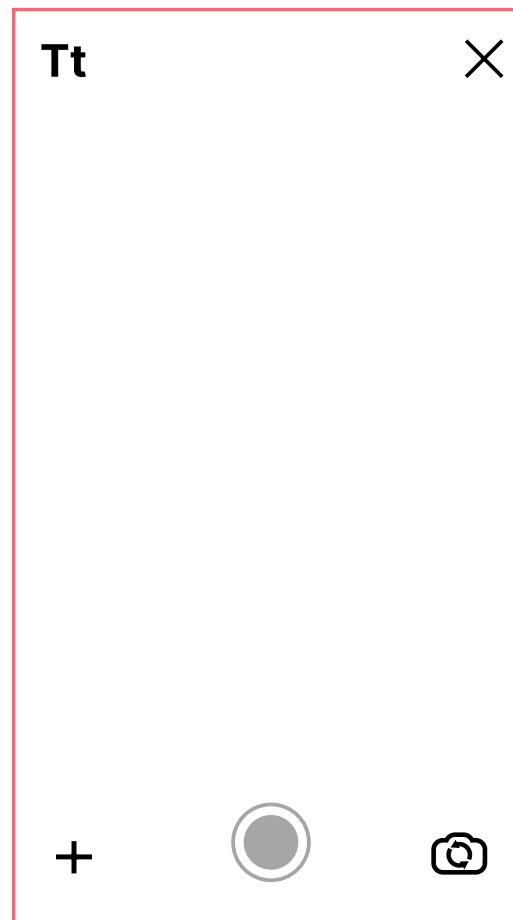
Battle/Chat



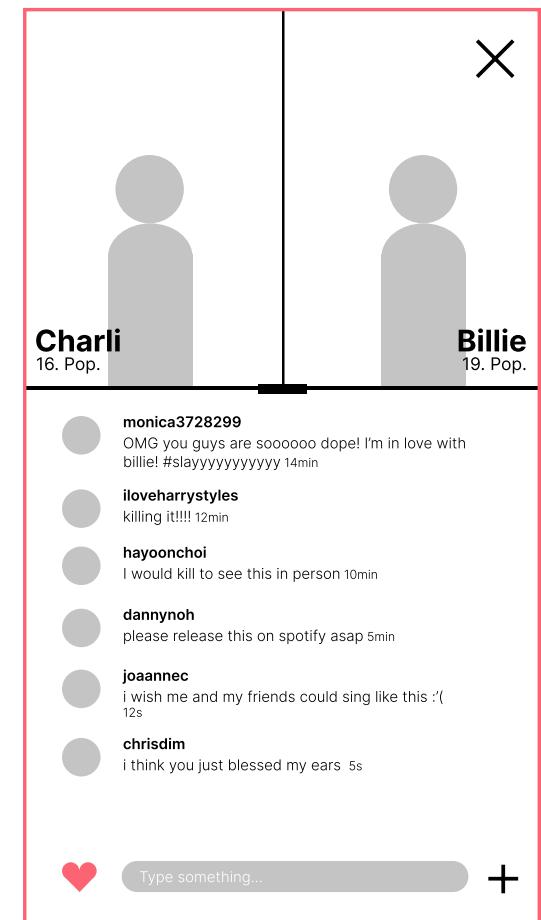
Discover/Browse



Create



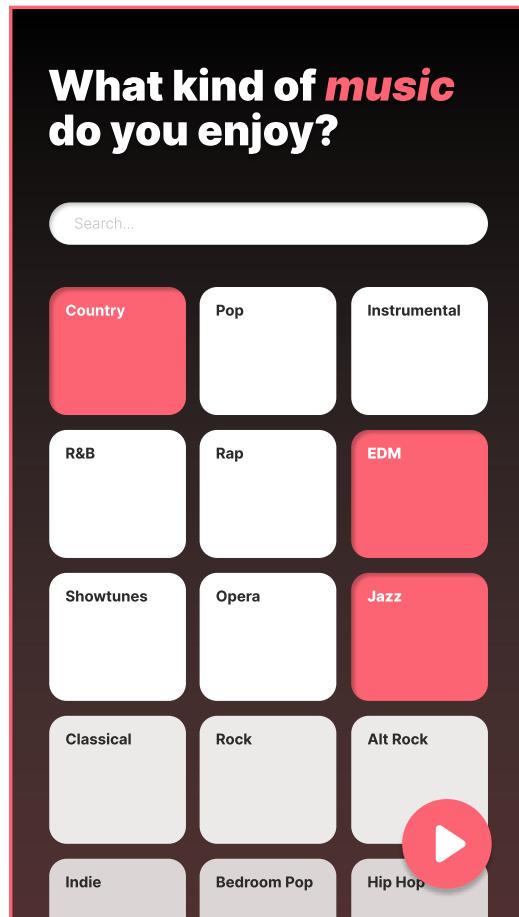
Discover/Live



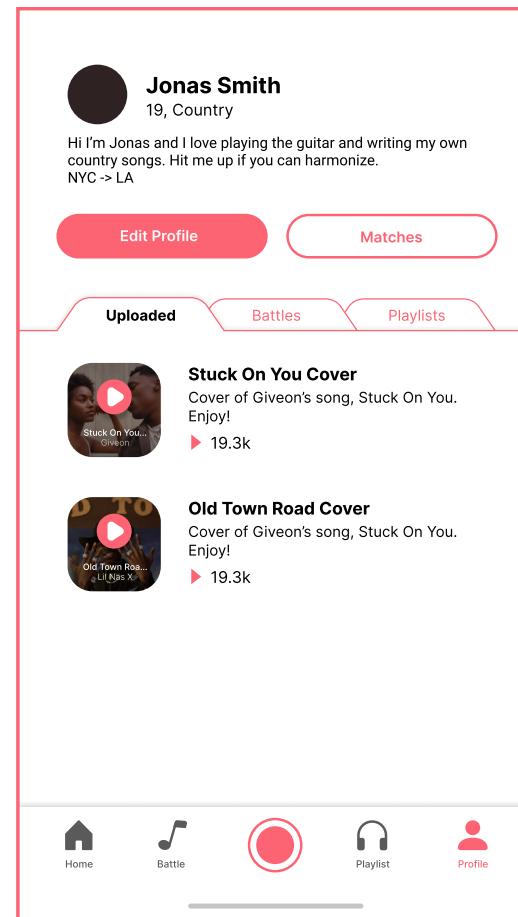
Hi-Fi Prototype

Using Figma, we finalized settling on the color scheme and typefaces of our digital product, and began adding in the details to our mid-fi prototype. Before creating the final prototype, we settled on a unique color scheme, grid structure (mostly outer margins), and typeface for consistency. Our main goal was to create an aesthetically pleasing app that could be easily used.

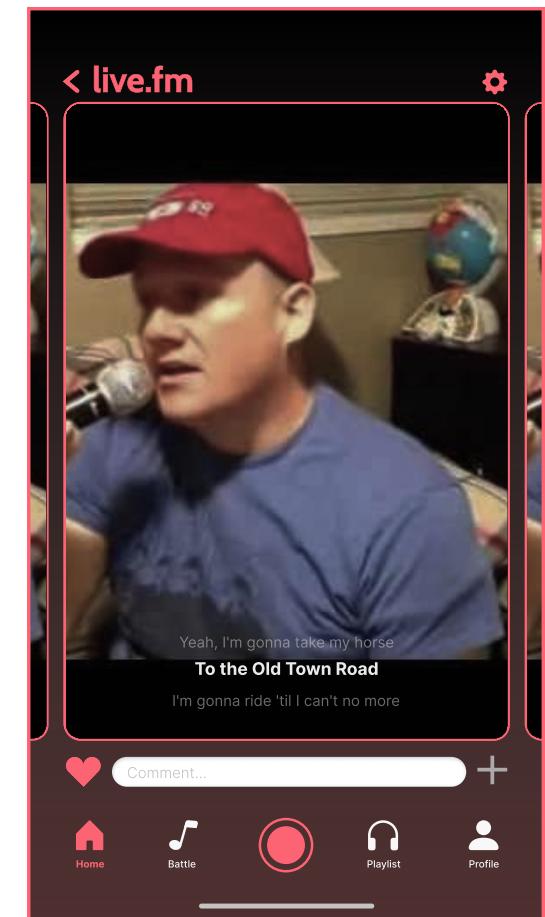
Onboarding



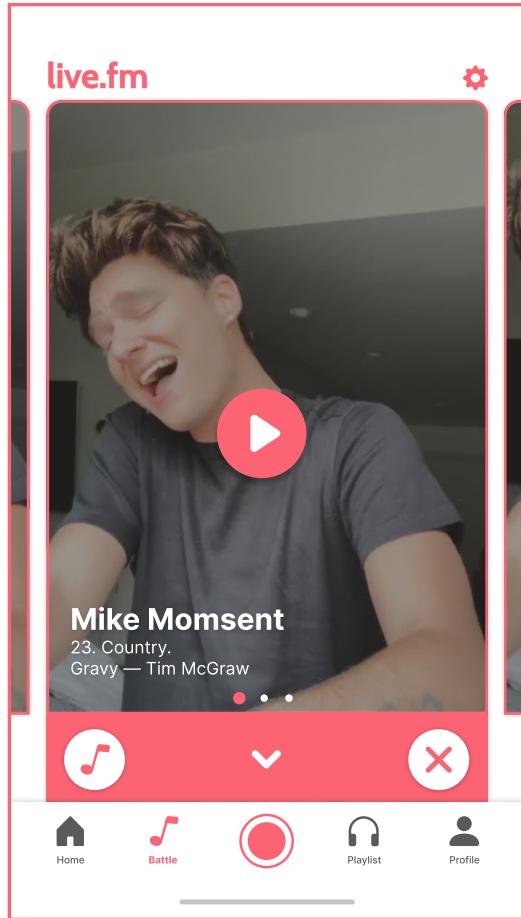
Profile



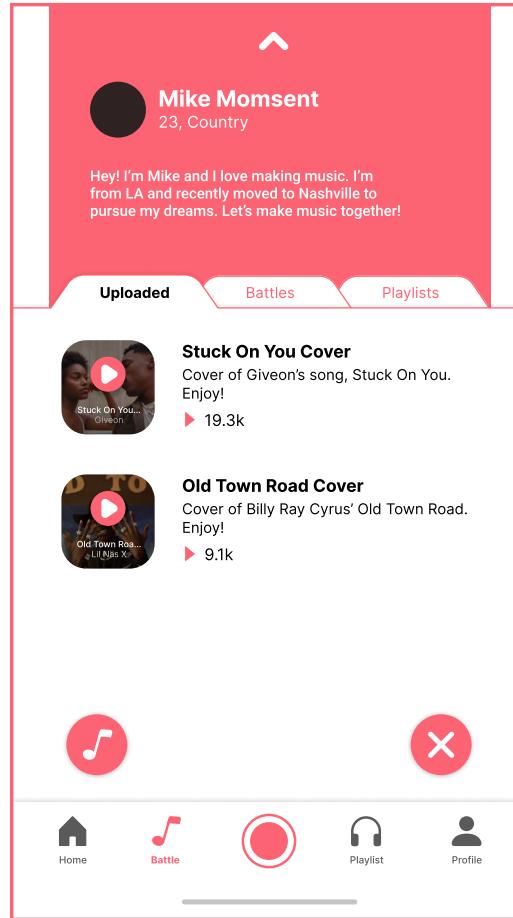
Discover/Listen



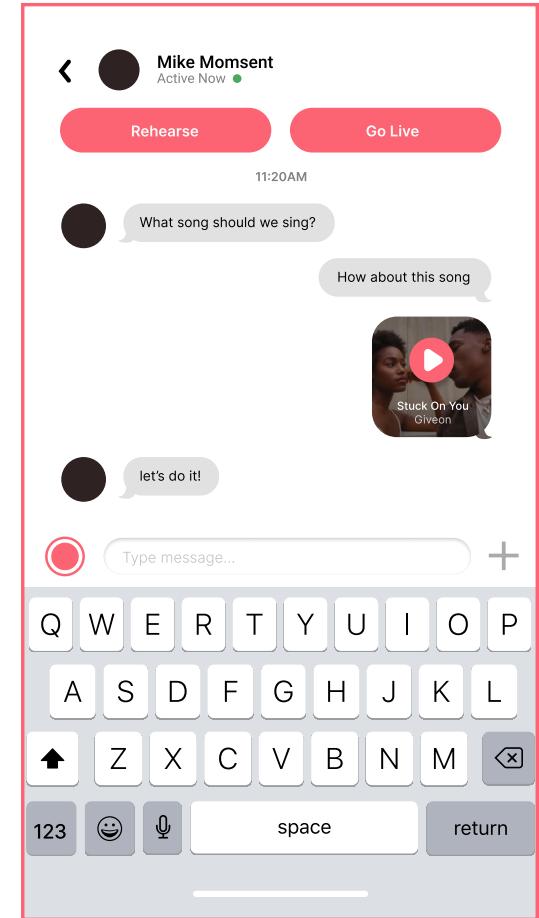
Battle/Match



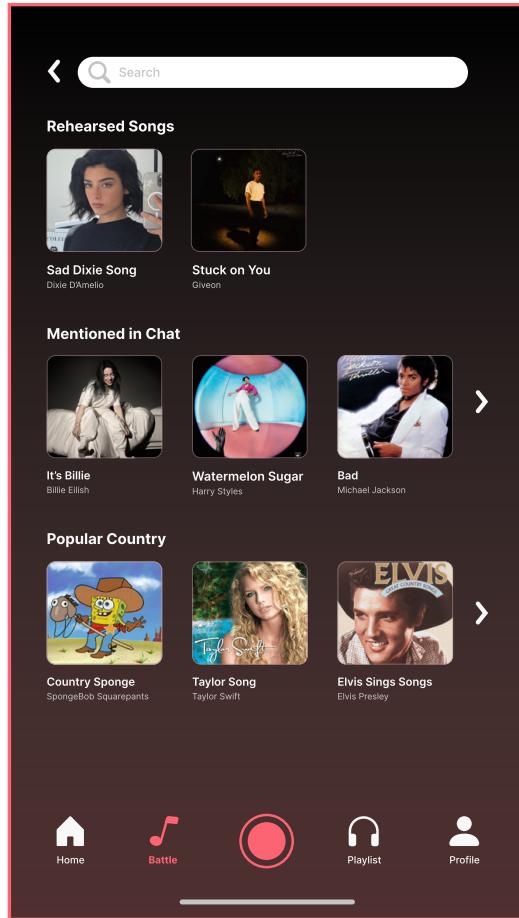
Battle/Profile (Swipe Down)



Battle/Chat



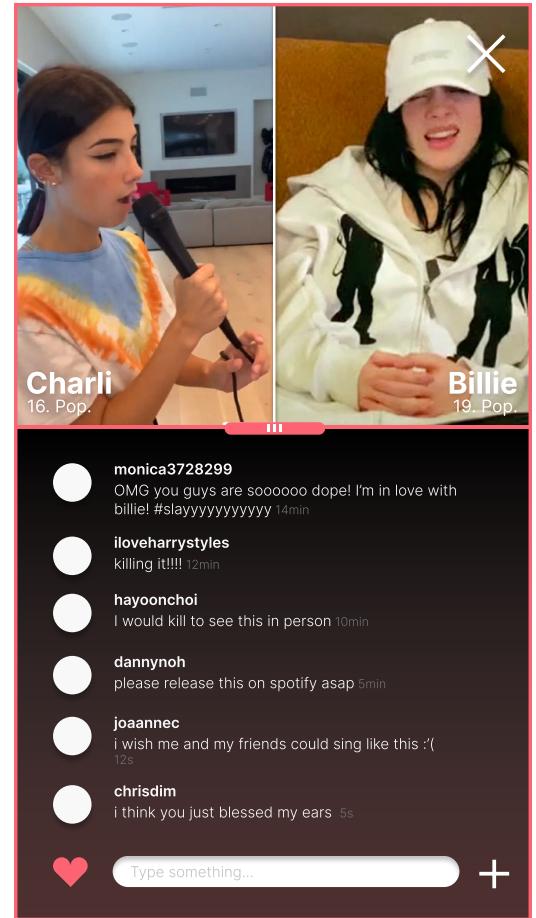
Battle/Pick a Song



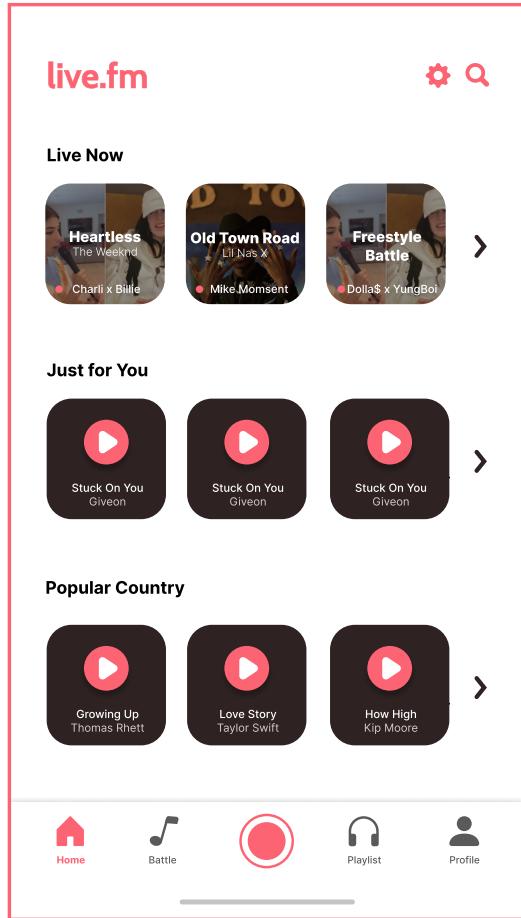
Create



Discover/Live

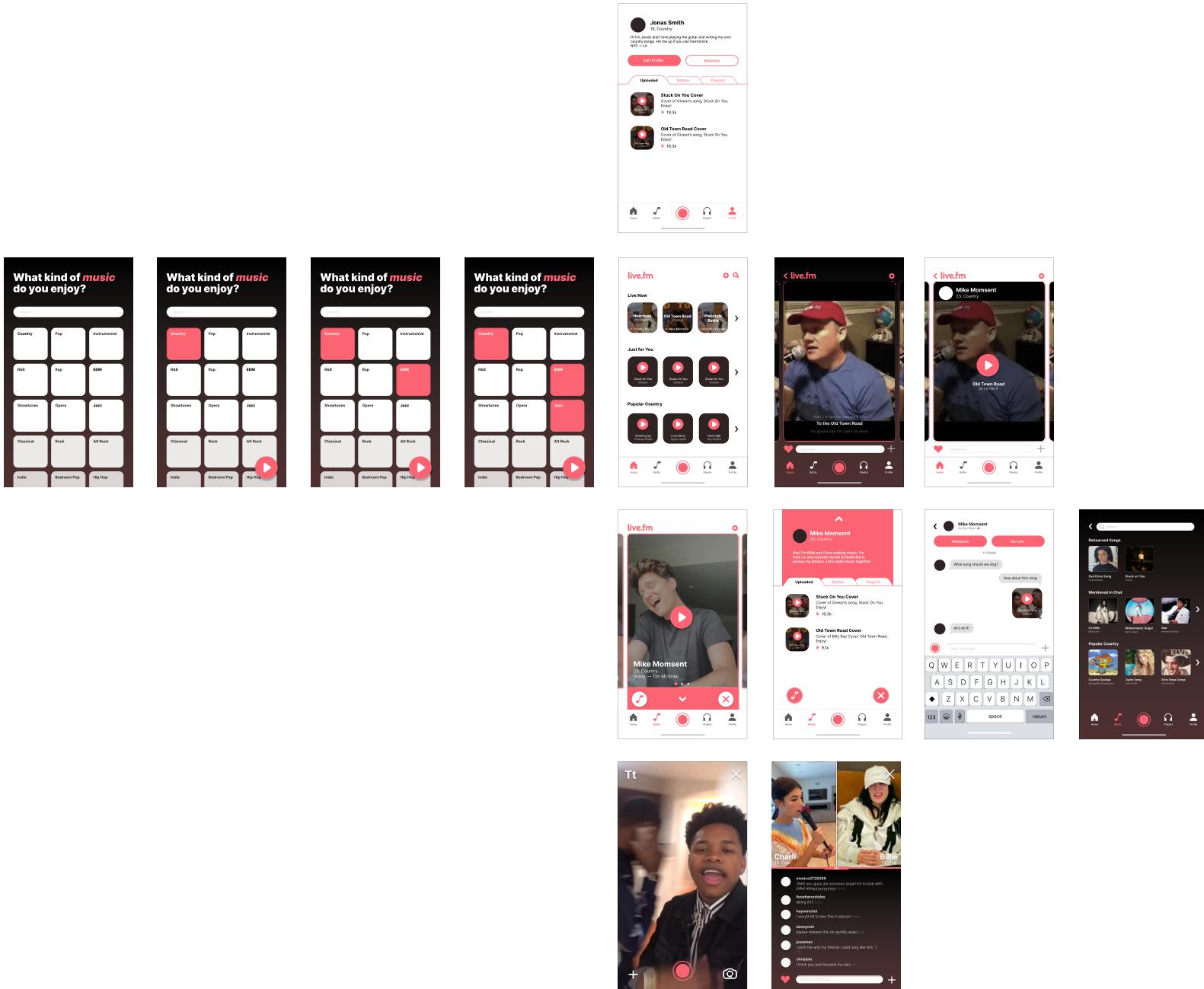


Discover/Browse



We also created a full prototype with detailed interactions on Figma. This included a pause screen for the discover feature, an interactive onboarding screen, and a swiping feature for the battle matching screen. This prototype can be found and experienced through this link:

<https://www.figma.com/proto/X9PxjZmsGShTEqDiws79Cr/Hi-Fi-Prototype?node-id=0%3A1>



Reflections

Hayoon Choi

I enjoyed working on this project with my team members. This was my first time designing an app and I learned a lot through this experience. I found it really helpful to work with my teammates. Although I've been in group projects, they were mostly with my other design major friends with similar educational backgrounds. However, for this project I got to work with two architecture students and one business student. Both Daniel and Joanne were experienced designers and I got to learn more about digital product design from them. Working with Christian was refreshing since he didn't have much prior design experience so with his help, I got to see some of the problems through a new perspective. However, I do wish that we got more time to work on this project. Oftentimes, our process was rushed and we didn't get to fully understand or develop our ideas and had to move on to the next step. There are still many aspects that I want to implement to our current design and I also want to finesse or redesign some parts. Nonetheless, overall, it was a useful experience that helped me grow as a designer.

Christian Diminich

One of the most interesting aspects of this design process was how it was necessary to keep the user's experience/needs in mind at all times. There is a stark difference between casual social media users searching for music and talented musicians looking to collaborate, so each potential scenario was carefully thought through. Our team was lucky to brainstorm a concept that was intriguing to each of us, with the emphasis on musical collaboration a personal favorite. I truly enjoyed designing an digital interface to serve a specific user audience, but I wish we were afforded more time between our mid-fi and hi-fi deliverables. With the design work mounting towards the end of the unit, there was little time to fully talk through our design iterations. The fast-paced nature of this project certainly helped my design skills, in addition to collaborating with skilled architecture majors such as Daniel and Joanne. Overall, I am extremely pleased with our design aesthetic and function, and I look forward to enhancing my skills in the interactive dashboard unit.

Daniel Noh

I'm mostly surprised by the outcome of our groups work over the past few weeks. This is definitely one of the shortest, yet most aesthetically developed UI/UX project I have been a part of thus far. It was also my first time working as a group on one UI through Figma, which was certainly a fun learning experience. I learned how to collaborate, both aesthetically and conceptually, with my peers and I learned a lot from them! I was pleasantly surprised by how quickly we were able to merge our ideas together and create a cohesive project, especially the hi-fi prototype (where we only had a day to work on). While I had some reservations about the idea of creating an app in a group with such a short turnaround, I was glad I went through this experience and came out with a wonderful project.

With more time, we could have investigated with more user-testing, especially with the mid-fi and hi-fi prototypes. It was a shame that we couldn't test the user interaction of the hi-fi prototype, as all the user-testing on this level was done internally (as we only had a day). I think the toughest point of the project was when we were prompted to user test, create mid-fi prototypes, and create hi-fi prototypes given two days time. Perhaps this was only due to our own ambitions, but to create a high-quality prototype we definitely needed more time to discuss our findings from the user tests.

Joanne Chui

This was a great first experience in user design, and my teammates and I worked well together through establishing efficient workflows and expectations. We each brought ideas to every meeting to be discussed such that all of our voices and ideas were heard, and as a team selected those we thought were the most effective. This project taught me the importance of maintaining a user-centric design process, and allowed us to ask the right questions in order to produce a unique app design. As a group member, being open minded was critical in having a smooth workflow and a synthesis of ideas. Overall, our group had a lot of fun with the project and was able to establish a cohesive aesthetic while fleshing out the most critical aspects of our idea. While this project did not allow us a lot of time and felt rushed at some points, the timeframe also allowed us to be creative and quickly make decisions to push the app forward.