

# MuseCollab

## Final Report



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**SMAD 317**  
**December 12, 2019**

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# EXECUTIVE SUMMARY

The main thought process behind the creation of our app MuseCollab was finding an effective way to streamline means of communication between musicians, as well as anyone who operates within the music industry. Collaboration is such a major part of this business, though at times connecting with each other even just in the same hometown can be difficult. Whether it be searching for someone who plays a particular instrument, scheduling/keeping track of rehearsals or upcoming gigs between multiple people, finding connections to producers or concert promoters, or simply wanting to find others to jam with; this app is meant to satisfy anyone with which music is heavily involved in their life. Through conducting user interviews, those being university music students and freelance musicians in Harrisonburg, we discovered that the majority of their frustrations with collaboration in this industry centered around networking difficulties with forming new groups, landing gigs, and finding producers with access to recording studios. While designing MuseCollab, we aimed to take the familiarity of all the different popular social media/messaging apps and combine them into one in order to make communication between musicians as quick and simple as possible.

# PROBLEM STATEMENT

**"Musicians need to have an easier way to meet and communicate with other local musicians because it is often difficult to find the right person for a musical project, especially if one is needed last minute."**

# RELATED WORK

## Jambro

Jambro identifies the problem that many musicians around the world have: networking to find other like-minded individuals in order to advance their musical goals and ambitions. This system addresses the related problem of keeping musicians connecting with each other, since this particular industry thrives so much on collaboration. It features a really appealing interface that's easy to pick up and understand. Having an eye catching visual design is just as important as functionality, because if users don't know how to interact with your interface because the design is confusing, then functionality won't even matter at that point. That being said, Jambro hasn't been around long enough to gain a massive following, so trying to connect with people, especially in your local area, is difficult.

## ReverbNation

ReverbNation identifies the problem with beginning artists/bands trying to get exposure and industry opportunities, and shares the same goal as our design of making networking easier for starting musicians. One of this app's biggest draws is its professional quality at a fraction of the cost, as well as its implementation with other popular music sites in order for musicians to promote their music. One of the most beneficial things we can take away from this is cooperating with other music apps/sites that could enhance the experience of our product. We could apply this in a number of ways, from implementing SoundCloud functionality, to being able to share to other social media sites. One of its only drawbacks, however, is in order to really reap the benefits of using this product, you have to pay a pretty substantial monthly subscription fee.

## BandFriend

BandFriend identifies the problem of bringing local musicians together, whether that be to start a new band, project, or simply just to jam. It addresses the related problem of helping musicians find other musicians, since collaborating is made more difficult when you have no connections. YouTube and SoundCloud integration is a nice touch and allows people to actually see/hear those who use this app play and perform. This system is probably the closest to what we aim to do with our app, which focuses solely on connecting musicians and allowing them to see what each other can do as well as what their preferred genres are, and leaves the actual purpose of finding said connections to those people. We will attempt to make our application more personal by implementing private messaging, ways of getting in touch with each other, and just putting your name out there on a platform that is made for discovering musical talent. Same issue as Jambro, filtering by location is not a feature on this app. Instead, you choose from a set list of locations that supports this app's functionality. This is counterintuitive, however, because if your goal is to connect local musicians, why are people given the option to choose a location on the other side of the country or just in a completely different country in general?

# RELATED WORK

## Sonicbids

Sonicbids is an application for musicians who are looking for opportunities to gig or seeking more industry exposure, as well as for promoters/booking agents who are searching for talent to play at their venue. It addresses the related problem of musicians finding ways to play more live performances. It features an easy, self explanatory interface that takes you right where you want to go with no questions in between. Also, unlike the apps previously mentioned, there is finally an option to use your current location to search for people. So far this is the best app for solving the issue of musicians and promoters alike trying to find each other in an easy way.

## Bandcamp

Bandcamp is for bands/artists who want to promote their music for anyone to hear and to kick start their career. The main purpose it serves is for promotion, in order to build/maintain a starting fanbase or to be discovered by producers. Some of its major pros is that the musicians on Bandcamp range from newbies to some well known artists. It also allows for a direct-to-fan design coming straight from the artists.

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# DESIGN PROCESS

## User Research

### Defining Users

The targeted users for this design are young musicians between the ages of 18-35 years old that live and spend a large amount of time in their town (in this case Harrisonburg) which includes both college students and locals. We selected specific individuals that we knew would be interested in our idea for an application and interviewed a variety of musicians, from those who are involved in the music scene in Harrisonburg, those who plan to be, and those who are students of James Madison University majoring in music as well as one who was not a student at all. Both Matt and Clay are very active with the band and music program here at JMU, so it was easy to find and pick out which specific people we knew would not only be interested in using our app, but would also provide helpful feedback that differed from person to person.

### Interview Process

We conducted all of the interviews in person, one-on-one, at various different locations across campus and off-campus while taking audio recordings or transcribing answers in Google Docs. We asked the interview participants several questions concerning their identity and experiences as a musician. Our questions focused specifically on the participants opinions on the ease or difficulty of collaborating with other musicians, and how they normally go about doing so.

Our interview questions included the following:

- What's your name, age, (academic year and major if a student at JMU), and musical experience/skills (primary instrument, others)
- What are you working on currently as a (musician, band, producer, sound engineer, etc.)
- How is the music scene in Harrisonburg in your opinion?
- Have you ever been in a non-school organized band? If so, how was it formed? If not, how would you go about forming one?
- Have you ever connected with a producer for recording? If so, how did you find them? If not, how would you go about finding one?
- Do you use any sites/apps for networking? What difficulties have you had using these methods?
- How do/would you find opportunities to perform/gig?
- What characteristics would you look for/want to know about a prospective band member?
- Have you ever had an issue with members unable to perform for scheduled gigs? If so, how did you deal with the situation, and what was the outcome?
- What were your main struggles with getting started?
- Have you ever given/taken music lessons?

# DESIGN PROCESS

## User Research

### Data Analysis

We sorted and clustered the data using card sorting and organized the interviewees based on color.

We settled on 9 categories:

- Formation of a Band/Group
- Finding a Producer
- Network/Social Media Apps
- Finding Gigs
- Prospective Band Members
- Members Missing Gigs
- Networking Difficulties
- Main Struggles Getting Started
- Given/Taken Music Lessons.



These categories were based on our interview questions. According to our data, most of our interviewees seemed to prefer to have a more personal connection between the people they were collaborating with. They would like to know more about them on a personal level before collaborating. In terms of searching for prospective band members or people to jam or collaborate with, some answers that multiple interviewees gave were that they wanted to know peoples' musical styles/interests, their seriousness and level of commitment they would be willing to expel, and their years of experience.

# DESIGN PROCESS

## Persona 1

### Kyle Brooks

Primary Persona

"Organization and efficiency are crucial to ensuring success in the music industry, but are some of the hardest things to learn."



#### Demographic Info:

Age: 21

Occupation: Student at James Madison University

- Senior music major

Location: Harrisonburg, VA

#### Background Information:

Kyle is a saxophonist who started playing in middle school, fell in love with jazz and went to college to pursue his dreams as a jazz musician. He is in a student-organized jazz band consisting of himself and 5 of his friends in the music major.

#### Goals:

- Find more performing opportunities to improve his saxophone skills
- Release an album for his band so they can start gaining a following
- Make connections with other musicians so he can find a career after college

#### Frustrations:

Has tried reaching out to producers and venue owners through email, social media, etc., but finds his networking methods to be 'hit or miss,' and is frustrated by the inconsistency and inefficiency of his methods.

#### Needs:

- He needs an app that will allow him to quickly find local producers and venues for recording and performing.
- Working with a large band, he needs a streamlined approach to networking to help keep things organized.

#### Key Attitudes:

Prefers apps/websites that are simple and easy to navigate.

#### Technology Use Behavior:

Uses a MacBook Pro for sending emails to producers and venue owners he wants to work with. Uses an iPhone X for communicating with his band-mates and keeping track of his schedules.

# DESIGN PROCESS

## Persona 2

CJ Anderson

Secondary Persona

“ Music is my life, it's how I earn half of my income; I can't tolerate people who don't take this seriously or act like a professional. ”



### Demographic Info:

Age: 24

Occupation: Retail Cashier/Freelance Musician

Location: Harrisonburg VA

### Background Information:

CJ was born in a small town and moved to Harrisonburg, VA soon after he graduated high school. Though he never had a desire to get a degree in music or attend a university in general, CJ wants to pursue a career in music, but starting from the ground up is difficult. This means he must develop his reputation solely through playing shows and meeting people that will help him get his career off the ground. CJ is primarily a guitarist and prefers rock music, but also likes heavy metal and plays drums as his secondary instrument. Currently, he is a part of two different bands: one that is a rock band in which he plays lead guitar for, and the other a heavy metal band in which he plays drums for.

### Goals:

- Locate new members to jam and form bands with
- Substitute members who are unable to perform for scheduled gigs
- Find musicians with the same musical interests that play the same styles and on a particular instrument, and that are reliable, serious, and trustworthy as people.

### Frustrations:

- Working with people who actually turn out to not have serious intentions as he was previously lead to believe
- Working with people who don't act professionally (arriving on time, reliability)
- Missing one piece of a band (a guitar player, a drummer, etc.) that he wants to write and perform music with, but that process is halted indefinitely until they have all the instruments they need

### Needs:

- To know more about a person than just a surface level description
- Be able to have a more personal connection with a prospective band member before they start rehearsing and performing together
- People who have the availability and a genuine desire to express themselves through music
- People who are serious enough to be able to practice and perform in order to earn money

### Key Attitudes:

Prefers faster, simpler mobile versions of apps and software as opposed to desktop software.

### Technology Use Behavior:

CJ mainly sticks to his iPhone 8 as his primary technological device and source of communication.

# DESIGN PROCESS

## Scenario 1

Kyle is a senior music major at James Madison University in Harrisonburg, VA. While he is busy earning his degree, Kyle is also a gigging saxophonist as part of a non-school affiliated jazz group consisting of his friends he met through being a music major. The current goal/struggle for Kyle and his jazz group is playing gigs to not only build up their performance chops and skills, but to keep putting their name out into the industry and continually grow their reputation as musicians. Reaching out to promoters of venues in the area can be really difficult since methods of connection can be hit-or-miss most of the time and the group does not really have much of an online presence, so it is difficult for people to take them seriously as a legitimate musical act if they have no social media page or website. Due to this, venues almost never respond back to them. Kyle soon learns about MuseCollab, an app that can streamline the process of finding venues to perform. Instead of being forced to email or send a social media message to each individual owner/promoter, he can simply look up venues near him, and send an instant message straight to whoever the owner or promoter is. The promoter can then look at Kyle's customizable profile, which could have anything from videos of performances to albums for people to listen to. With this knowledge, Kyle creates a profile for the jazz group, posts their recently recorded album, a few live performances on video, and a brief biography and a description of the band and what they've accomplished so far. With this, he then searches venues in the area that are open for bands to play shows at and sends a couple of them a message. In little time, he gets a response from one of them asking to play in the next month. Kyle felt that this was extremely useful since he and his bandmates are so busy with school as well as writing and rehearsing as a band. Going through the frustrating and time consuming process of finding gigs was stressful and most of the time not even really feasible. Through this app, they were able to streamline their process in consistent, convenient, organized, and efficient way.

# DESIGN PROCESS

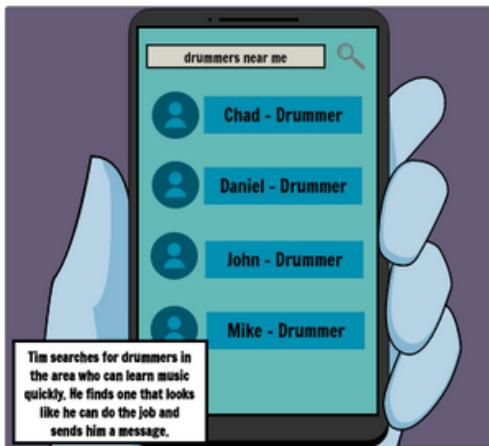
## Scenario 2

CJ is a musician who is working on building his reputation in his town, Harrisonburg, so he can make connections with people in the music industry and move to a bigger city to continue growing his career. CJ also currently works part-time at a local record store to maintain a steady income when the money that comes in from playing shows is a little light. Since he doesn't have a college degree (let alone one in music), CJ must rely solely on his reputation that he has built up over the years performing in Harrisonburg and across the state. Due to this, if one of his band members cannot play at a gig they have scheduled, causing the band to cancel the performance altogether, that hurts CJ's reputation considerably. People remember these types of incidents, especially promoters of other venues and other bands, which is not good for CJ since half of the money he earns is from playing music. This prevents him from moving forward in the industry.

One of CJ's bands has a show in less than a week and his drummer just let him know that he won't be able to play. This leaves CJ with very few options. Since the the performance is so close, he can't cancel it with the venue without leaving the owners with a very bad impression of him and the band, and he there also isn't enough time to find another band/act ready to play in just a few days. He decides that he must find a drummer to substitute in for his regular one. CJ finds out about MuseCollab, an app that allows him to easily search his area for musicians who play whatever the style of music and instrument that he is looking for and collaborate with them. After downloading it, CJ opens the app and customizes his profile, which allows him to indicate what instruments he plays, what musical genres he prefers, years of experience, age, and location. From here, he goes to the map feature and allows the app to use his location so that only musicians in Harrisonburg pop up. He searches around for only a few seconds until he comes across Jake, who is 26-years-old, a drummer that specializes in rock and roll, and has 8 years of experience in the industry; perfect for what CJ needs! He is then able to private message Jake, and once they are able to exchange audio/video files of each other playing and get comfortable enough contacting one another, they finally schedule a last minute rehearsal, and then they play the gig. Since the app was able to streamline the process of finding musicians who specialize in specific instruments and styles, CJ was able to quickly and easily locate a substitute for his missing band member, and his reputation was not tarnished because of it.

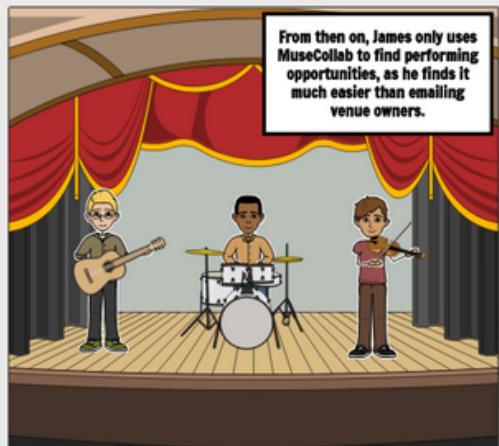
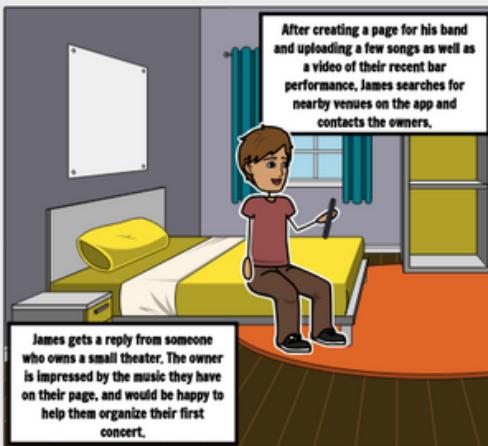
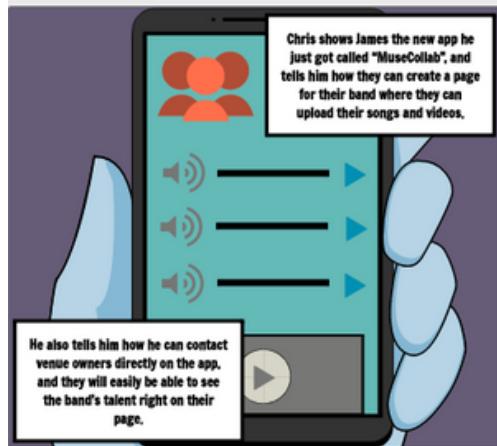
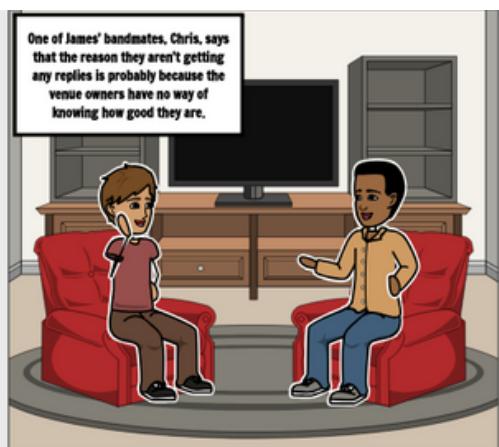
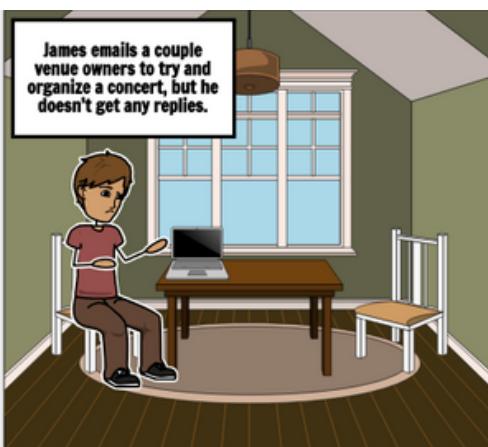
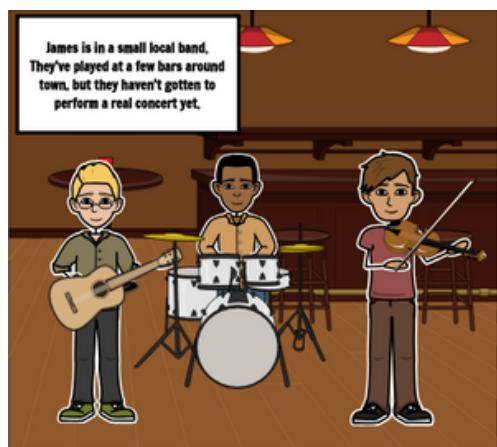
# DESIGN PROCESS

## Storyboard 1



# DESIGN PROCESS

## Storyboard 2



# DESIGN PROCESS

## Design Requirements

- Allow users to create personal profiles that contain searchable attributes.
- Allow users to create group profiles for bands to promote themselves to fans and producers.
- Include a public local message board for users to create posts.
- Allow users to give each other feedback through comments on their posts and profiles.
- Include a calendar for scheduling rehearsals and events, which can be shared with friends.
- Support for both iOS and Android devices.

# DESIGN SOLUTIONS

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Low-Fidelity Prototype  
& Feedback

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Best Concepts

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High-Fidelity Prototype  
& Evaluation

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Paper Prototype & Testing

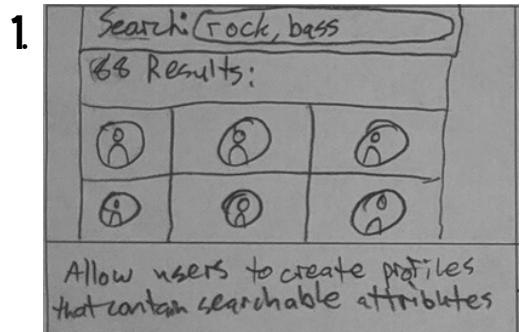
# DESIGN SOLUTIONS

## Brainstorming & Sketches

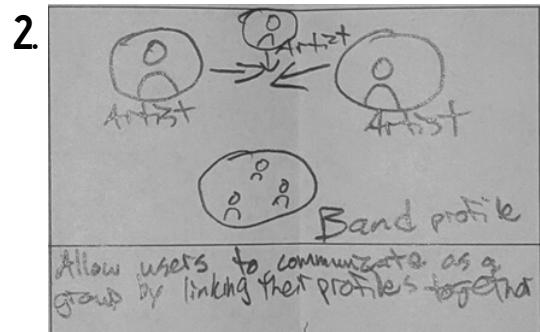
10 ideas from designs that already exist in the world, whether available as products, described as in research papers, or elsewhere.				
An app that includes SoundCloud and YouTube functionality related to other artists' music (source: Recruitable)	A news feed/message board to post public messages (source: Facebook)	Utilize a friend system that recommends collaborators based on mutual friends (source: Facebook)	Feature a private messaging option to contact straight to collaborators (source: Facebook)	Help users find collaborators more easily, and efficiently by including the option to use your current location (source: Sora)
Help users easily promote their work straight to other artists and listeners (source: Bandcamp)	Make scheduling more organized and easier for users by having a calendar (source: Google)	Allow users to share documents/files, sheet music, etc. (source: Google Drive)	Utilize push notifications to notify users of their opportunities to perform, collaborate, etc (source: friend)	Remind users that they performances, rehearsals, meetings, etc. have been put on their calendars (source: Google Calendar)
10 ideas you think does not yet exist in the world; these should be ideas you thought of yourself				
Allow users to create profiles that contain searchable attributes	Allow users to give other users feedback through comments on their profiles	Allow users to communicate as a group by linking their profiles together	An event that introduces artists to each other, similar to a job fair	Help users locate students/teach for private lessons
Help users to efficiently find band members to substitute	Help users filter through profiles by looking at their accolades in the music business (amateur vs. professional)	Streamline communication by forcing users to message using the same platform, as opposed to texting, emailing, etc.	Allow recording studios to advertise services	Allow musicians to organize public jam sessions

# DESIGN SOLUTIONS

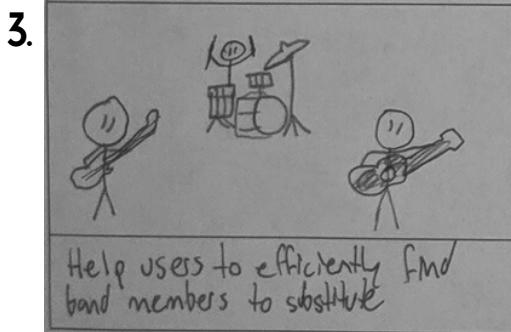
## Best Concepts



Allow users to create profiles that contain searchable attributes



Allow users to communicate as a group by linking their profiles together

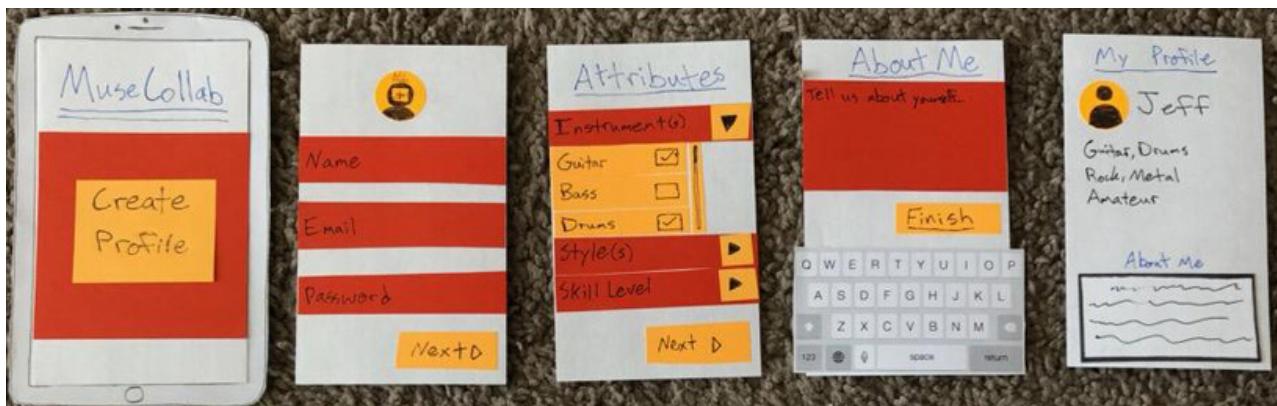


Help users to efficiently find band members to substitute

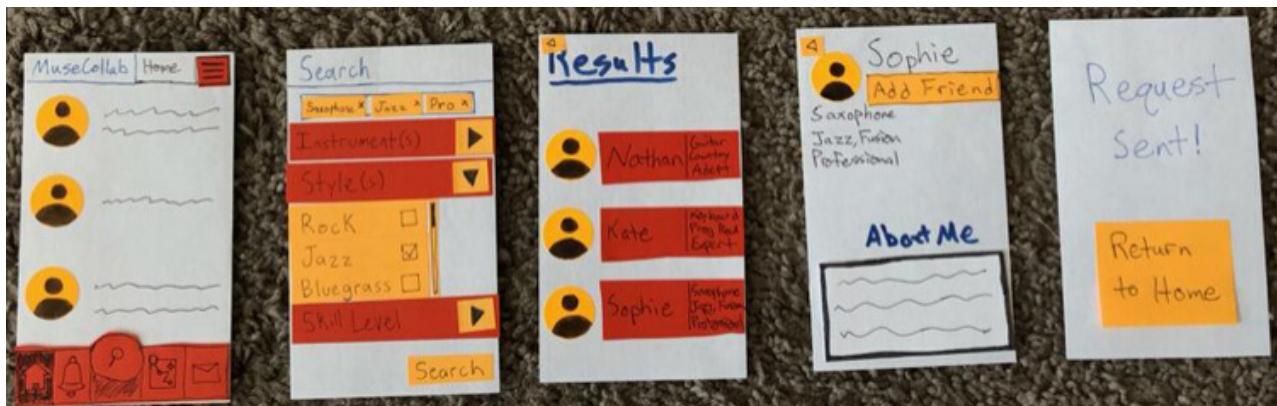
# DESIGN SOLUTIONS

## Paper Prototype & Testing

### Task 1 - Create a profile



### Task 2 - Search for a professional jazz saxophonist

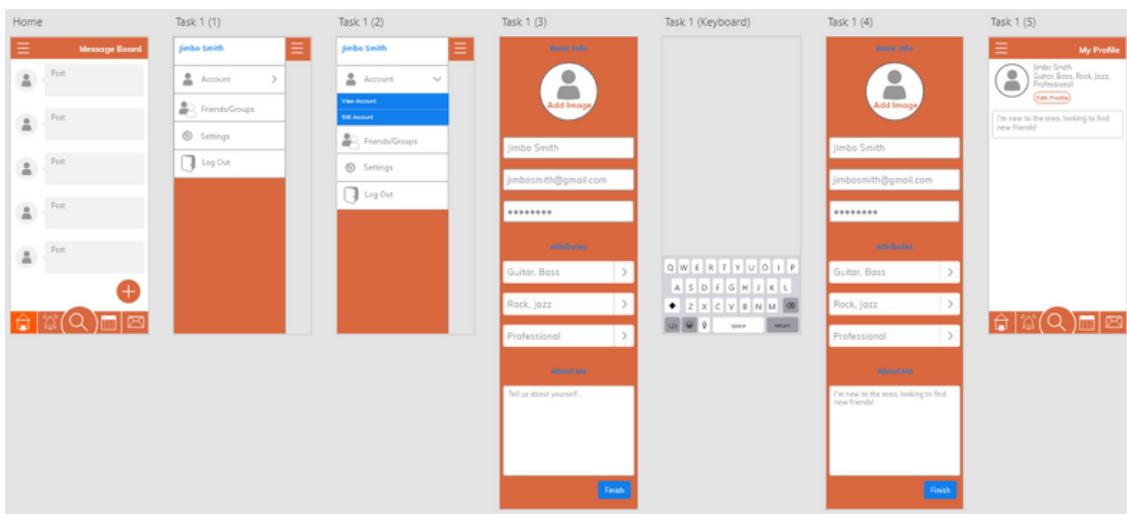


Our paper prototype served to test two task's functions. The first task, creating a profile, was marked a success once the user reached their completed profile screen. The second task, searching for a collaborator, was marked a success once the user reached the "Request Sent!" screen. All participants for our prototype testing were able to complete both tasks with relative ease, differences in their completion times were caused by thinking out loud and stating opinions on the interface. We found that the participants wished there were more options for skill levels, and questioned if the app would have a way to validate a user's skill level. Some participants also stated that they would rather message someone first before adding them as a friend.

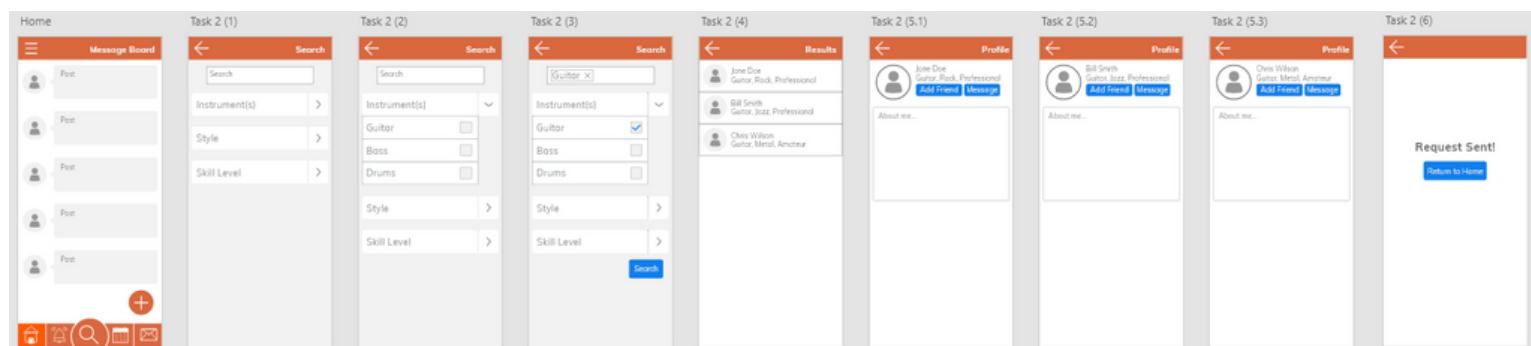
# DESIGN SOLUTIONS

## Low-Fidelity Prototype & Feedback

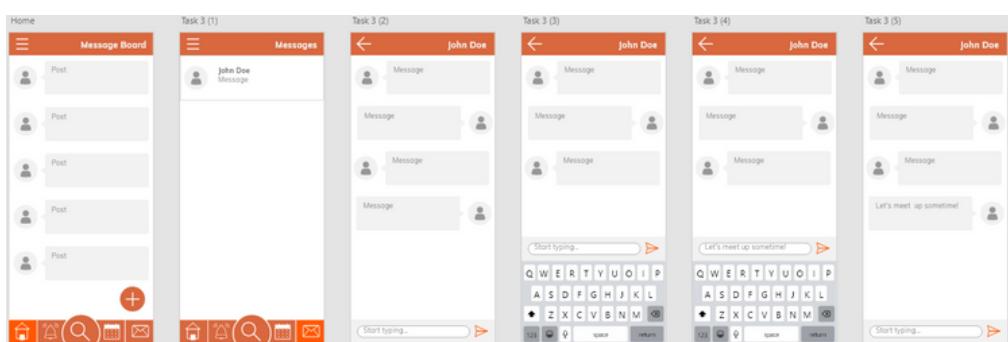
### Task 1 - Edit profile



### Task 2 - Search for a guitarist and add them as a friend



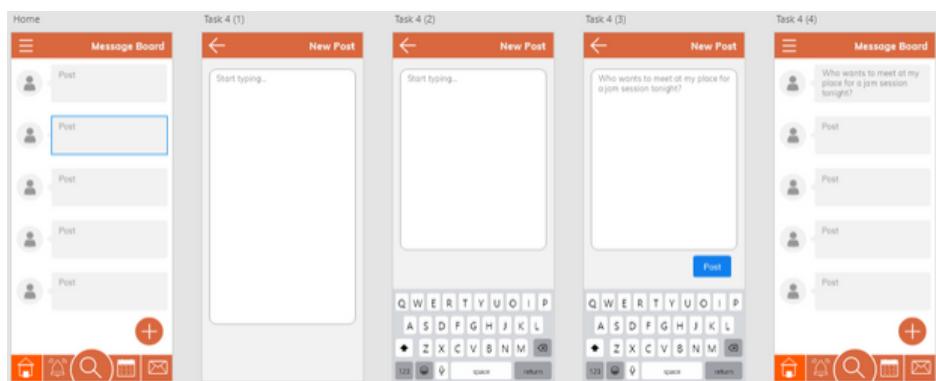
### Task 3 - Send John Doe a message



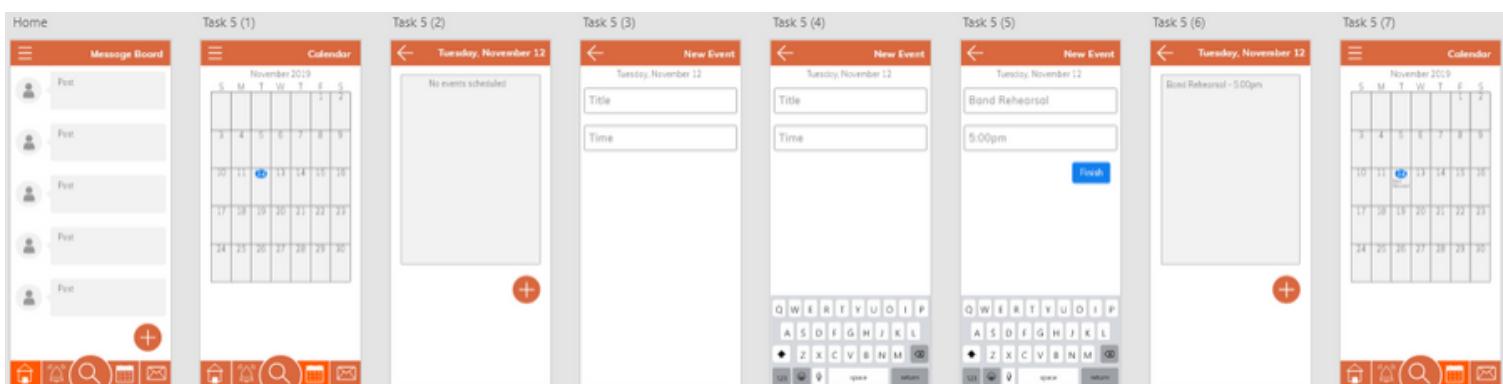
# DESIGN SOLUTIONS

## Low-Fidelity Prototype & Feedback

### Task 4 - Create a post



### Task 5 - Create a calendar event



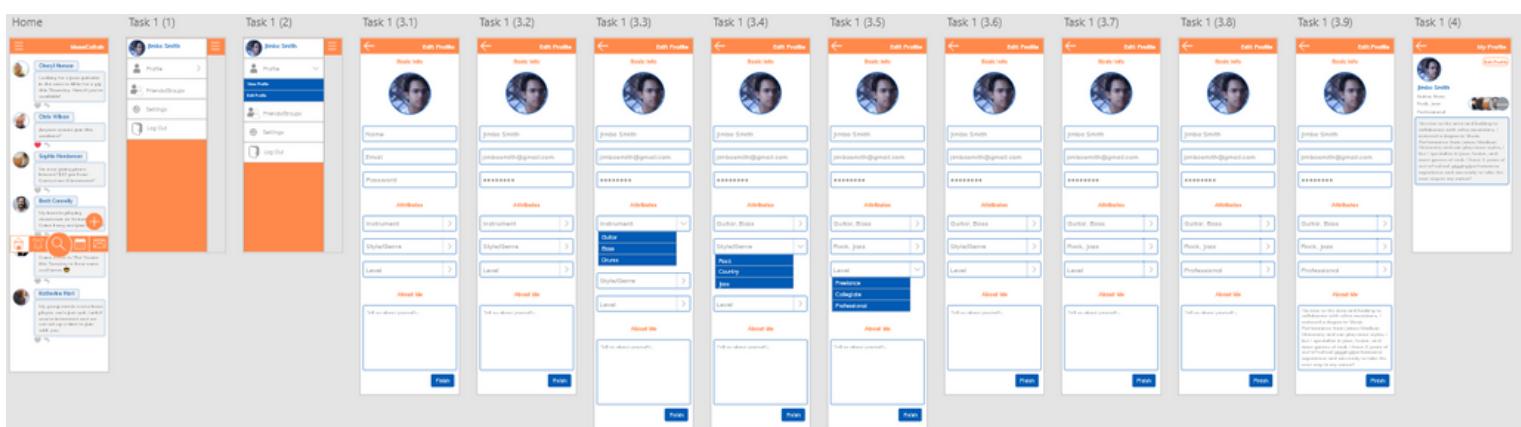
Our low-fidelity prototype covered the five tasks listed above. Overall we were satisfied with the functions of the design, but we felt a little unsure about some of the navigation elements. For example, we weren't sure which screens should include the bottom navigation bar, and which should just have back buttons. After submitting this prototype, Professor Guo recommended that we change the colors for clarity, add the ability to like, comment, edit, and delete a post, and that we expand on the calendar task and add more attributes for users to give events.

# DESIGN SOLUTIONS

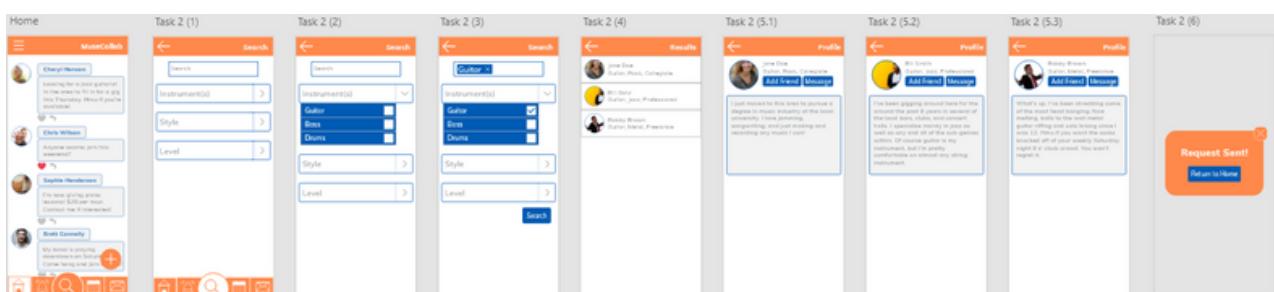
## High-Fidelity Prototype & Evaluation

\*More details can be viewed in our Adobe XD project file

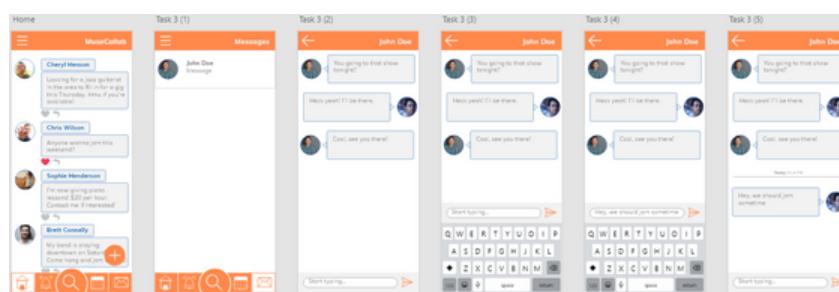
### Task 1 - Edit profile



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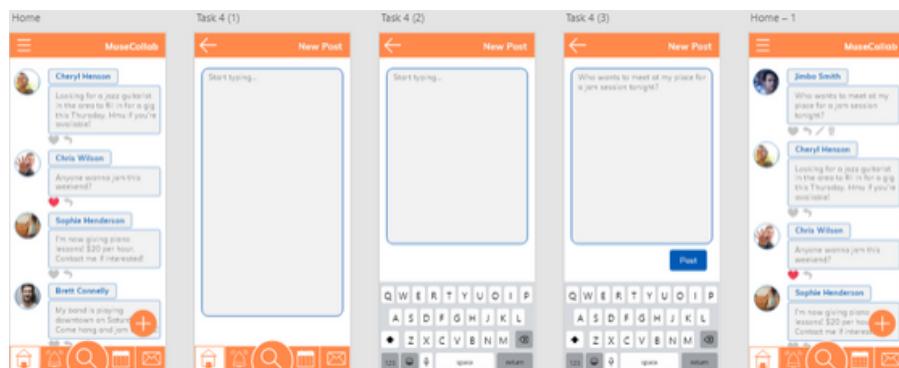
### Task 3 - Send John Doe a message



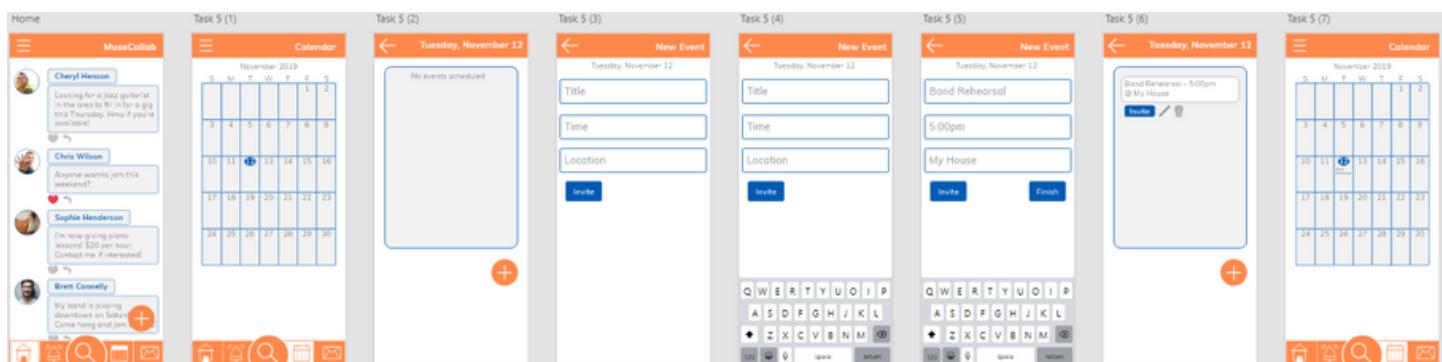
# DESIGN SOLUTIONS

## High-Fidelity Prototype & Evaluation

### Task 4 - Create a post



### Task 5 - Create a calendar event



Our high-fidelity prototype covered the same five tasks as its low-fidelity counterpart. We made several changes between these stages of prototyping, both functionally and aesthetically. As for functions, we added like and reply buttons to posts, as well as an edit button for a user's own posts. We also added some functionality to the calendar task by allowing users to add a location to their events, invite friends, and edit/delete events. Aesthetically, we modified our low-fidelity prototype by changing the color scheme to a brighter, cleaner orange, with white and blue accents. We surrounded many boxes with a blue border to make them stand out from the background a little more. We also changed the background of the edit profile screen from orange to white to make it less jarring, and we changed the screen that appears upon sending a friend request to an overlay. Upon submission of this prototype, Professor Guo recommended that we add more micro-interaction options, and allow users to search by typed keywords/names and filter the results. We originally designed the search function to rely solely on drop-down boxes and selectable filters, but looking back, we believe that we could probably incorporate the use of typed keywords as well if someone wanted to search for a specific person.

# Conclusion

Through the course of this semester, We worked together to design an application that would help musicians find other musicians to collaborate with. We spent a lot of time brainstorming ideas and learning about the application design process. For example, we learned efficient methods of brainstorming ideas and selecting the best ones, and we learned the importance of paper prototypes and how they allow developers more freedom to change their ideas before creating a digital design. Through the methods we learned, we were able to design an application that we believe would meet the needs of potential users. We know that the design is not quite consumer-ready, but we are satisfied with what we created and we know this project will serve as a strong basis for our understanding of UX and UI design.