Alexander Golin   2/11/16

<u>BandMate Product Proposal</u>

Product Description

BandMate is a mobile application that serves as a matchmaker for college music groups. There are many college students who play instruments and may be interested in playing with others like them, but it can be difficult to happen upon other musicians due to such busy daily schedules. BandMate aims to solve this problem by asking each user to make a Musician Profile and specify what types of musicians they would like to play with. The application then algorithmically pairs people based on their music preferences, desired band constituency, and musical proficiency, and allows each user to anonymously decide whether or not they would like to try playing together. If two users pair with each other, both users are alerted and can start forming a band. Each user can begin forming multiple bands, until one desired band constituency is fulfilled, at which point the users in the band can set a time to meet and rehearse from the application. Additionally, the app can be used to find a musician to immediately jam with using the same algorithm previously described.

User Analysis and Usability Goals

BandMate's target audience is American college and university students aged 17-25, and the users are all expected to be from within the same college or university community. For users of this age group and education level, BandMate assumes that they have a relatively high level of proficiency with mobile devices such as iPhones and Androids. BandMate is meant to be user friendly for all individuals who are frequent mobile app users.

Possibly the most key facet of BandMate's user audience is the fact that it is necessarily comprised of musicians. The entire purpose of BandMate is to pair musicians with other musicians, so BandMate assumes that its users are musicians. It therefore assumes a certain familiarity with music terminology and culture, however not so much that it is unnecessarily inaccessible. In terms of musical proficiency, BandMate assumes all levels of users. BandMate's algorithms account for each user's musical proficiency when providing band mate suggestions.

BandMate is meant to be easily accessible to anyone who is well accustomed to mobile devices such as iPhones and Androids, so very minimal training, if any is necessary. Upon first downloading the application and opening it, the user will be guided through a sign up process, and given a very brief, interactive tutorial as to how to interact with the primary system, and perhaps a few temporary textual annotations could highlight some key features worth pointing out.

Task Analysis

There are a number of different tasks that ultimately comprise the system that is BandMate, particularly the following user tasks, which are broken down into increasingly detailed subtasks. All these tasks will be performed on a mobile device, so they can theoretically be performed anywhere on the go in standard American collegiate life. People will be using this app on a college campus, so there are few serious safety concerns regarding the environment. BandMate is flexible in that a user can spend as much or as little time as they want using it. If they want to leaf through every possible suggested musician on campus in one sitting, it would theoretically be possible, but users are also easily able to quickly open the app and leaf through only one or two suggested musicians.

- Create a Musician Profile to represent oneself within the application
  - Preconditions
    - Must have mobile device capable of downloading applications
    - Must have valid email address or social media account for identity verification.
  - Enter email or link social media account
  - Choose a password
  - Add a profile picture
  - Fill in personal information
    - Name
    - Age
    - Gender
  - Choose own instrument(s)
    - Specify length of time playing instrument(s)
    - Specify proficiency with instrument(s)
  - Choose desired band configuration(s)
  - Fill in music taste description
    - Favorite genres
    - Favorite artists
    - Favorite albums
    - Favorite songs
  - Link music accounts
    - Spotify
    - Soundcloud
    - Last.fm
    - Bandcamp
    - Cymbal
  - Add personal discography
  - Edit any of the above profile information
- Form a band
  - Decide whether a suggested musician is compatible

- ■ View profile details
  - ● Instrument
  - ● Proficiency
  - ● Name, age, gender
  - ● Music taste description
  - ● Feed of online music activity
  - ○ Match with musicians until one band configuration is complete
- ● Rehearse
  - ○ Agree upon a time with other band members
    - ■ List availabilities
    - ■ Select favorite workable option
  - ○ Select rehearsal location
    - ■ Select from on campus options available at desired time
- ● Immediately find a musician to jam with
  - ○ Turn on Jam Now status
    - ■ Set duration of Jam Now status
  - ○ Select to be randomly paired with someone
    - ■ Filter by various metrics
      - ● Instrument
      - ● Proficiency
      - ● Genre preferences
  - ○ View other musicians who have Jam Now status turned on
    - ■ Send an individual a Jam Now request
  - ○ Select rehearsal location
    - ■ Select from on campus options available at desired time

Functionality and Usage Scenarios

Feature: Create and edit a Musician Profile.

Definition: The Musician Profile is the user's representation within the app. To be a member of BandMate and take advantage of its functionality, each user must create a profile, that can later be edited an unlimited number of times. The Musician Profile is consistent of a number of things: 1) The user's general information such as name, age, and gender. 2) Which instruments the user plays and how proficient the user is at each instrument. 3) the user's desired band configuration (e.g one guitarist, one bassist, one drummer). Each user can select up to three band configurations (with repetition of configuration being allowed) to attempt to simultaneously find band mates for with. 4) A music taste profile that is consistent of a user defined taste description, the user's selected favorite genre tags, and and activity of the user's activity on online music platforms will be aggregated into a music activity feed that other musicians can view when deciding whether to accept a band mate suggestion. Some examples of included online music platforms are Spotify, Cymbal, Last.fm, and BandCamp 5) Each user can decide if

he or she would like to include any personal music compositions, recordings, or performances on their profile so that other musicians can listen to their work while evaluating whether or not to accept the band mate suggestion.

Scenario: Nick would like to make a new BandMate account to try to meet and play with other musicians on his campus. Nick has an iPhone 6 and is on the University's wifi network.

1. Nick downloads BandMate from the iPhone's App Store.
2. He opens the application.
3. He reads a greeting message that briefly welcomes him and tells him the purpose of BandMate
4. He follows instructions to enter an email account or link his Facebook account.
5. He follows instructions to choose a password.
6. He follows instructions to fill out personal information such as his name, age, and gender.
7. He follows instructions to select his instrument from an array of choices and indicate his level of proficiency.
8. He selects whether he would like to specify another instrument of choice.
9. He follows instructions to select different musician roles to comprise his ideal band configuration.
10. He selects whether he would like to specify another ideal band configuration (up to 3 at a time).
11. He writes a brief overview of his music taste.
12. He selects some of his favorite genre tags from an array.
13. He searches for some of his favorite albums and specifies that they are his favorite albums.
14. He searches for some of his favorite songs and specifies that they are his favorite songs.
15. He decides if he would like to link his online music activity from several services such as Spotify, Cymbal, Last.fm, and BandCamp.
16. For each online music service he wants to connect, Nick enters his login credentials and connects the service to BandMate.
17. Nick presses the "Start a Band" button that appears after he is done creating his profile. Clicking this button takes him to the BandMate Matchmaking tab.

Feature: Match with other musicians to form a band.

Definition: The band matchmaking feature is the proprietary and primary feature of BandMate. Users must first create a Musician Profile to take advantage of BandMate's functionality, but once users create their profiles, they can begin trying to pair with other musicians at their college or university. Upon account creation, users will be directed to the Matchmaking tab of the BandMate application. Upon subsequent visits to the application, the user can choose whether to view the Profile, Matchmaking, or

Jam Now. Once on the Matchmaking tab, users are presented with an overview of another user's profile. The displayed user is selected by algorithmically matching the current user with another musician based on a number of factors: instruments played, proficiency with instruments, musical taste, and ideal band configuration. When a user is presented with a potential band mate, they can inspect the other musician's profile and view all the information that the other musician specified in his or her profile. After learning about a potential band mate, each user must decide whether they would be interested in trying to play together sometime, or if they would rather pass on the opportunity. Users will be alerted if they are matched, but users will not receive any indication until both parties accept the suggestion. No user will ever be alerted of being rejected by another user. This anonymity is built in with the intent of removing some of the social anxiety that accompanies forming a band. If a user matches with another musician, that musician is added to their list of matches until a complete band configuration is formed. Once a complete band configuration has been formed, the user is alerted and given the opportunity to contact the group and schedule a time to meet and rehearse.

Scenario: Mark would like to start a band after years of playing guitar, but he only has experience playing alone aside from a couple jam sessions. Mark just finished working on his Musician Profile last night and wants to try matching with other musicians now. Mark is an undergraduate with an iPhone 6, and is connected to the internet on his school wifi network.

1. Mark opens BandMate on his iPhone 6.
2. He presses to the Matchmaking tab and is brought to the main matchmaking display.
3. He follows a brief interactive tutorial regarding the page, since it is his first time using it.
4. Mark examines his first suggestion's profile by scrolling through the information.
5. He decides whether or not he would like to play with the suggested musician.
6. He presses either an accept or decline button. If Mark accepts and the other musician had already accepted Mark, he would then read a message that alerts him of a match.
7. Mark evaluates the next suggestion, and repeats the process.
8. When Mark matches with enough of the right kinds of musicians, and they have matched with each other, he reads a message that is displayed by BandMate that tells him he has put together a band, and asks him to indicate his availabilities in the upcoming week.
9. After all band members have indicated their availabilities, Mark receives a popup message and is presented with a list of options that work for all band members, and he casts his two votes for his preferred options.

10. When everyone in the band votes, Mark receives another popup, and he presses the button that says "Book a Room," which takes him to his university's music room reservation system, where he selects a room and books it.
11. Mark and his bandmates meet up at the agreed upon time at the room Mark booked and have their first rehearsal.

Feature: Jam Now, the feature used to find musician to immediately jam with.

Definition: Jam Now serves as a secondary feature to BandMate's primary band matching feature. By navigating the Jam Now tab of the application, users can indicate that they would like to play with other musicians right at that moment. Users can specify how long they would like their Jam Now availability to last before automatically turning off. Users can select to either be randomly paired with another musician in an algorithmic manner similar to that of the band matching system, or they can elect to personally message someone else who has their Jam Now status turned on. When two musicians match, they are presented with a link to their school's music room booking system.

Scenario: Alysha just finished her last class and now has a two hour break after class before she has to DJ at the radio station, and she's got nothing to do. Whenever she is bored, Alysha likes to play guitar, but she doesn't feel like playing alone tonight. She would like to find somebody new to play with during her two hour break on very short notice. Alysha has used BandMate before and is familiar with its capabilities. Alysha is an undergraduate with an iPhone 6, and is connected to the internet on his school wifi network.

1. Alysha takes out her phone and opens BandMate.
2. She navigates to the Jam Now tab.
3. She turns on her Jam Now status by pressing a big button in the middle of the page and indicating how long she would like her Jam Now status to remain on. She selects 2 hours.
4. Since she is in the mood to meet a new musician, Alysha presses the button to algorithmically pair with another musician.
5. Alysha is presented with a potential musician and peruses his profile.
6. She feels that she does not have enough in common with the other musician, so she declines the Jam Now matching.
7. She then examines BandMate's next suggestion, and feels compatible with the new musician named Julia. She accepts the Jam Now pairing, but receives no message, meaning the Julia has either not yet seen Alysha's profile, or has declined to Jam with her.

8. Alysha begins evaluating the next suggestion, but is interrupted by an alert message that tells her she and Julia have matched and provides a link to the music room reservation system.

9. Alysha reserves a room and immediately gathers her gear and starts walking over to the music building to meet Julia in a few minutes.

10. Julia and Alysha jam together for up to two hours.

Conceptual Model

- Object: Musician Profile
    - Description: A user's self representation within the application.
    - Actions On: Upon initially trying the application, users will be required to create a Musician Profile, and they can subsequently edit any of the information at any point after account creation.
    - Attributes: Personal information, instrument preference, instrument proficiency, preferred band configurations, music taste description, feed of online music activity, personal discography.
        - Actions On: Each one of these attributes can be edited indefinitely.
    - Relationships: Each Musician Profile is a stand alone entity, however the application's premise is to foster a relationship between these autonomous profiles. Two profiles can be matched or be in a band.
        - Actions On: Users decide to accept or decline another user as a potential band mate based on that user's Musician Profile. Once two profiles are matched, they may be able to begin playing together, depending on their preferred band configuration. If more members are required for a band, a user is able to review their current matches that are waiting to be arranged into a band.
- Object: Suggested Musician
    - Description: A musician that BandMate has algorithmically predicted to be a good potential candidate for a user to be in a band with or to play music with.
    - Actions On: Each user can either accept a suggested musician as a potential band mate or decline them. The same is true for Jam Now partners.
    - Attributes: Each suggested musician has their Musician Profile displayed to the currently active user, complete with all of the attributes listed in the Musician Profile section above. Each suggested musician also has a accept or decline button attached, and these are what the user interacts with to decide their opinion on BandMate's suggestion.

■ Actions On: Users can peruse a suggested musician's profile by scrolling through the information. Many of the attributes are tappable, and will expand into a larger, possibly more complete depiction of the information. Users can listen to a suggested musician's favorite music and uploaded personal recordings, as well as the audio tracks that appear in the online music accounts feed. Additionally, users must tap either the accept or decline button to decide whether or not they would like to play music with the suggested musician.

○ Relationships: Each suggested user is determined based on an algorithm that evaluates the similarity and compatibility another musician has with the user.

■ Actions On: In its current stage of thought, BandMate does not allow users to have any control over their matching preferences. In future stages of development, it would be nice to allow users to have more control over different metrics of compatibility that would ultimately affect the pairing algorithm and therefore which suggested musicians appear to the user.

● Object: Match
○ Description: A pairing of two users that have expressed a mutual interest in playing music together.
○ Actions On: Unless the user has specified that they are interested in being one half of a music duo, there will be no actions to take on a match as a construct. If the user specified an interest in being part of a duo, then that match will be treated as a band. See the band section below for a conceptual model of how a duo match would work.
○ Attributes: A match is consistent of two users who have mutually indicated interest in playing music with one another. A user can view this list of matches by going to the profile tab and pressing on the match list button.

■ Actions On: Users can tap on a match in their list of matches to view that musician's profile. The user can then interact with the profile by scrolling through the information, and tapping on subsections to enlarge them into a more detailed view.

○ Relationships: A match is a relationship between two users.

■ Actions On: At the current stage, users cannot take extensive action on their match relationships, however they can opt to permanently terminate a match by pressing a settings button next to their name on the match list, and then a delete and confirmation button after.
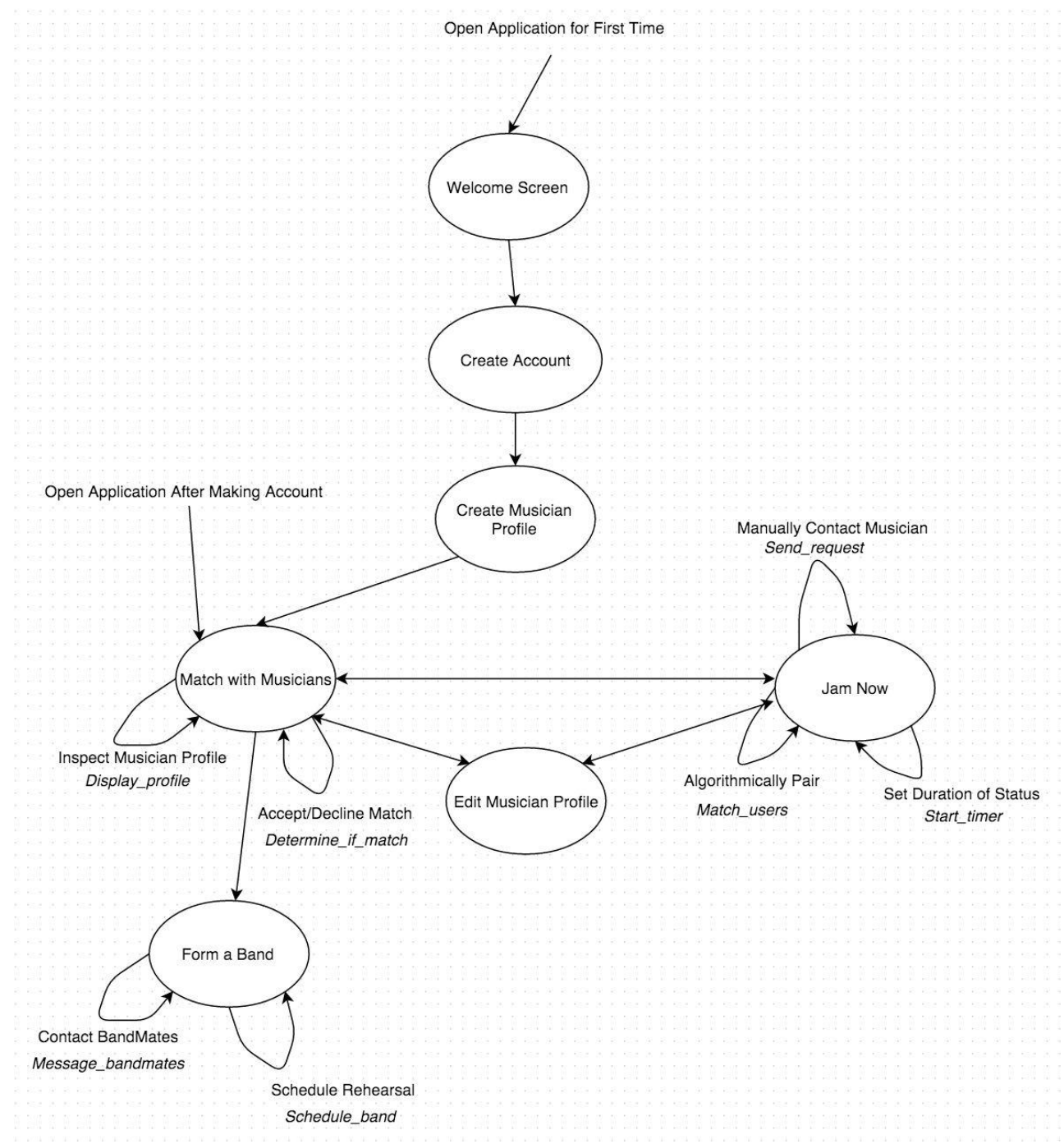
- **Object:** Band
  - **Description:** A band is a collection of any number of users who mutually want to play music together into a configuration that all users have expressed a preference for.
  - **Actions On:** Once a band is formed, users can specify their preferred rehearsal hours, and then select their two favorite options from a list of hours that work for all band members. After agreeing on a time, the band can reserve a room by following a link to their school's music room reservation system.
  - **Attributes:** A user's list of bands can be viewed by pressing a button on their profile tab.
    - **Actions On:** Users can view the profiles of individual members of the band by pressing on a band, and then pressing on that person's profile. The user can then interact with the individual's profile in the same manner described in the match section above.
  - **Relationships:** A band is a collection of relationships between two or more users who want to play together in the same specified band configuration.
    - **Actions On:** At the current stage, users cannot take extensive action on their band relationships, however they can opt to permanently leave the group by pressing a settings button on their band page, then "Quit the Band" button, and then a confirmation button. If all members quit the band except for two, then the option becomes to disband the group rather than quit the group.

Assignment 3: Bandmate Design

Semantic Level
- Function: Create musician profile.
    - Parameters: Each section of the musician profile requires the user to input personal information. For example, one parameter of creating a profile is which gender the user is, or another example is which music genres the user identifies as his or her favorite. The specific aspects of the musician profile are enumerated in Assignment 2.
    - Description: Each user must create a musician profile within the application. This is the user's representation of themselves within the app, and it communicates information about demographics and music taste.
    - Feedback: As the user is creating a musician profile, there will be a progress bar on the screen, indicating how far along the user is in the profile creation process. When the user finishes filling out all sections of the musician profile, the progress bar will display 100% and the user will have finished creating their profile.
    - Errors: If the user tries to complete the profile creation process and has not filled out a section of the profile, the application will deliver an error message that tells the user to finish filling out all sections of the profile.
- Function: Edit musician profile
    - Parameters: Each section of the musician profile is editable by the user.
    - Description: Each user can edit the information on their musician profile an unlimited number of times.
    - Feedback: After saving their edits, users will see a banner message at the top of the application that says "Edits Saved." This banner will persist for multiple seconds so that the user has a chance to see the confirmation of their committed changes.
    - Errors: If the user edits a section of their profile to be empty, then the application will deliver an error message that tells the user to fill in all sections.
- Function: Match with a musician
    - Parameters: Each user can evaluate whether they would like to connect with another musician by examining their musician profile, which is displayed to the user. The user must then select whether to accept or decline the potential match by pressing a button.
    - Description: Users can match with each other in an attempt to form a group of musicians that would like to play together.
    - Feedback: If the user chooses to accept the match and the other musician had already accepted the user, then the application will deliver an alert that informs the user that they have found a successful match.
    - Errors: There are no errors that can be encountered during the matching procedure.

- Function: Form a band
    - Parameters: Bands can be consistent of any number or types of musicians arranged in a group structure that each musician would like to be a part of.
    - Description: Users will specify their desired band format, and when enough musicians mutually accept each other as matches, the application will tell the user than a complete band has been formed.
    - Feedback: When a band is successfully formed, the application will display a popup message that tells the user that a complete band has been formed.
    - Errors: No errors can be encountered when a band is formed.
- Function: Jam now
    - Parameters: Users must specify how long they would like their Jam Now status to be turned on for.
    - Description: Users can turn on their Jam Now status to indicate to other people that they would like to play music at that instant. Users can either manually contact another musician who has their Jam Now status turned on, or they can opt to let the application algorithmically pair them with a compatible musician who has their jam now status turned on.
    - Feedback: If users opt to be paired algorithmically, then they will receive a notification when a match is successfully formed.
    - Errors: A user may forget that they left their Jam Now status on. It will automatically turn off after 12 hours, however this problem could still cause a lot of frustration in users.

Syntactic Level

Open Application for First Time

Welcome Screen

Create Account

Create Musician Profile

Open Application After Making Account

Match with Musicians

Jam Now

Manually Contact Musician
Send_request

Inspect Musician Profile
Display_profile

Accept/Decline Match
Determine_if_match

Edit Musician Profile

Algorithmically Pair
Match_users

Set Duration of Status
Start_timer

Form a Band

Contact BandMates
Message_bandmates

Schedule Rehearsal
Schedule_band

Lexical Level

- Display_profile - the application will display the profile information of potential musician matches so that the user can determine whether or not they would like to accept the suggestion.
- Determine_if_match - whenever a user decides to accept or decline a match suggestion, the application will determine if the two musicians mutually accepted each other, and if so, then the user will receive an alert that tells them they have successfully matched.
- Match_users - BandMate uses an algorithm to pair users based on the compatibility of their taste in music and experience playing.
- Start_timer - when a user turns on their Jam Now status they must specify how long they would like to leave it on for. Once a user's Jam Now status is turned on, the application begins a countdown, after which the Jam Now status is turned back off.
- Message_bandmates - users can send messages to their band mates to communicate or coordinate.
- Schedule_band - users can submit their schedule availabilities and decide with their band mates on the ideal time to meet and rehearse.

User Documentation

BandMate does not require any formal documentation, however it will include a very brief, interactive tutorial when a user opens the application for the first time. Users will be guided through the account creation process, and they will be introduced to the basic functionality of BandMate, namely the band matching function and the Jam Now function.

Storyboard
(Apologies for the clarity of the images, I tried both a scan and a phone picture, I hope together they will be sufficient)
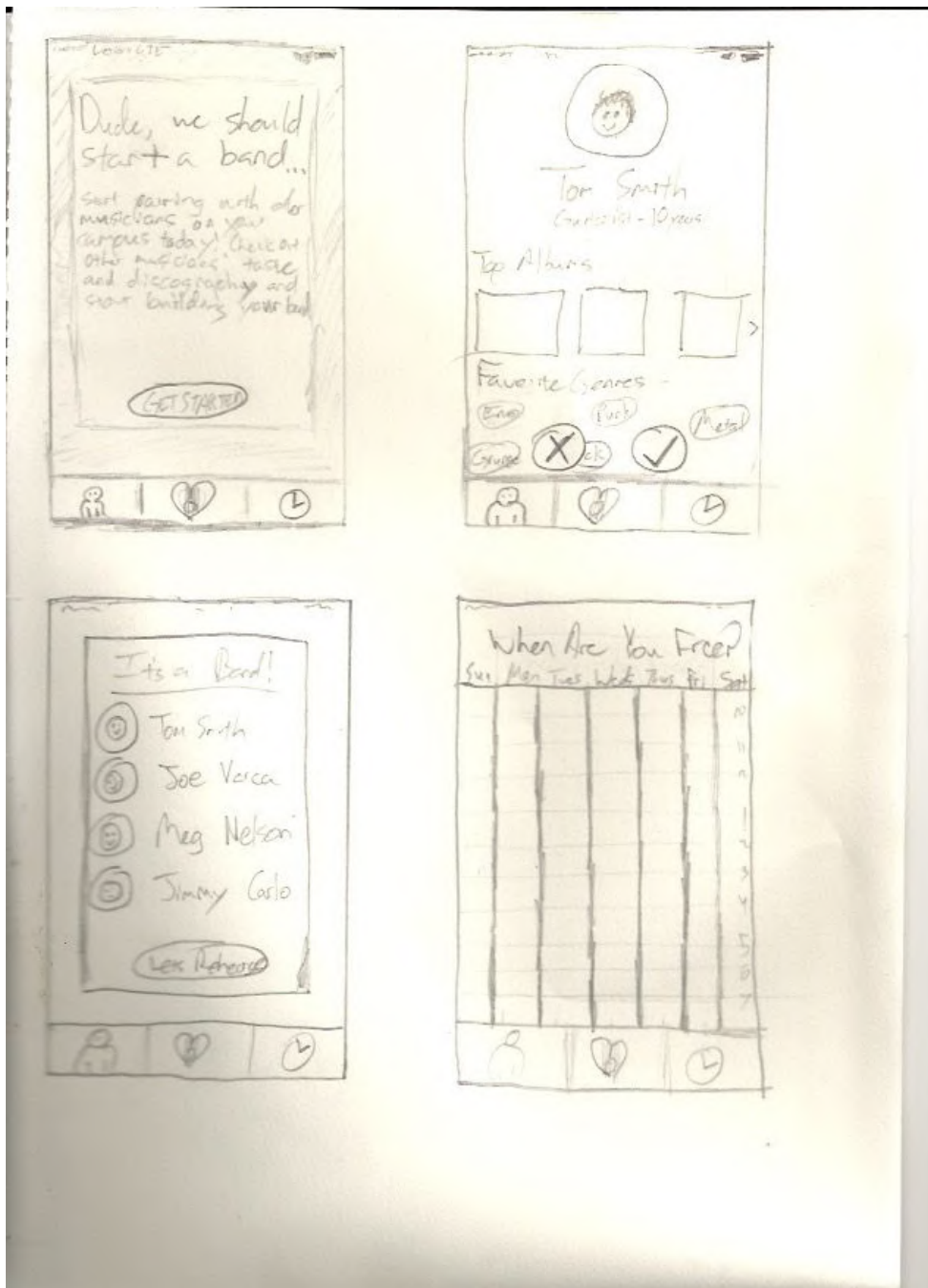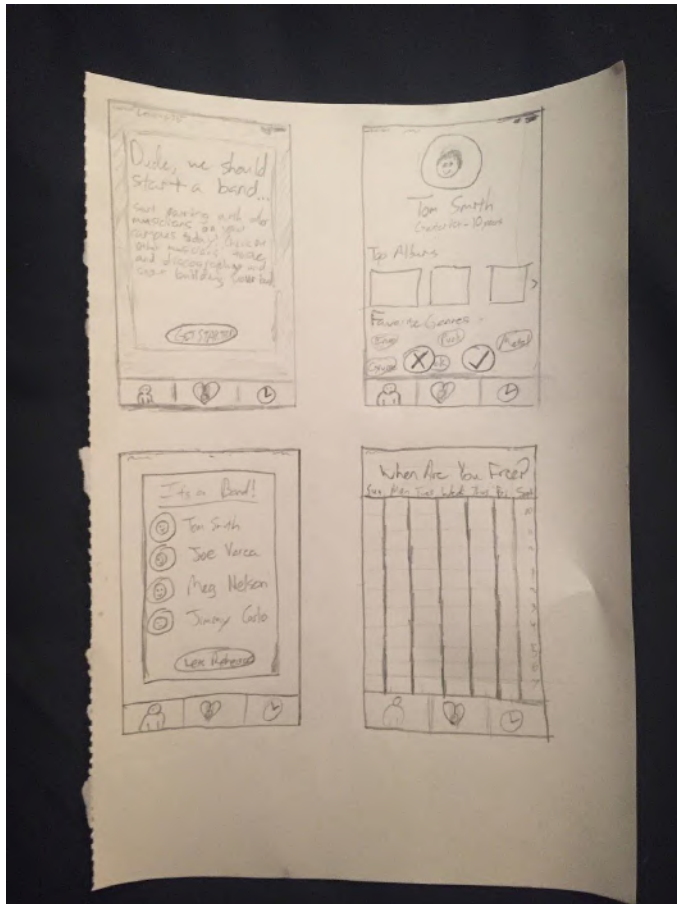
Task-Command Analysis

- Match with a musician
  - Button Presses: The user only needs to press two buttons to match with another musician. The user must navigate to the matching tab of the application, and then the user needs to choose whether to accept or decline the match suggestion.
  - Hand Movements Across Screen: The user will not need to move their hand much to press the buttons, but they will need to scroll through the musician profile to inspect the suggested match.
  - Movement to Other Parts of Device: The user will never need to use any other part of the device while using the application, however they may want to adjust the volume of their phone or they may want to navigate to a different application.
- Jam Now
  - Button Presses: The user will need to press the Jam Now tab in the app, and then they will need to turn on their Jam Now status. They will press a button to turn on their Jam Now status, and they will need to specify how long to keep the status turned on for. Lastly, the user will have to decide if they want to be algorithmically paired, or if they want to manually contact a musician. The user will merely have to press one of the two buttons, and if they choose to manually

contact people, then they will need to select from a list of profiles and type a message to them.

- ○ Hand Movements Across Screen: The user will have to move their hand if they are manually contacting people. To navigate through the list of people with Jam Now turned on, the user must scroll with their finger.
- ○ Movement to Other Parts of Device: The user will never need to use any other part of the device while using the application, however they may want to adjust the volume of their phone or they may want to navigate to a different application.

- ● Edit Profile
  - ○ Button Presses: The user will need to press the profile tab at the bottom of the page, and then they will need to press the "Edit Profile" button on their profile page. The subsequent number of button presses is entirely dependent on the user and how thoroughly they would like to edit their profile.
  - ○ Hand Movements Across Screen: The user will need to scroll through their profile to access the different subsections they would like to edit. They will also need to move their hand from the profile tab button to the "Edit Profile" button.
  - ○ Movement to Other Parts of Device: The user will never need to use any other part of the device while using the application, however they may want to adjust the volume of their phone or they may want to navigate to a different application.

- ● Contact Band
  - ○ Button Presses: The user will need to press the profile tab at the bottom of the page, and then they will need to press the "My Bands" button. The user can then see the different bands they are in and who is in each band. To contact an individual in a band, the user can press the message button next to that individual's profile picture on the list. To contact an entire band, the user can press the message button next to the band header in the list.
  - ○ Hand Movements Across Screen: The user will need to move their hand from the profile tab button to the "My Bands" button, and then they may need to use their finger to scroll through the list of bands and members if the list is longer than the screen height.
  - ○ Movement to Other Parts of Device: The user will never need to use any other part of the device while using the application, however they may want to adjust the volume of their phone or they may want to navigate to a different application.

After considering these scenarios, I think that the design of the matchmaking and Jam Now portions of the application facilitates minimal movement and interaction from the user, however I think that I would like to think more about the design of the profile page and try to think of a way to keep the various buttons closer to the bottom of the screen where the user's thumb comfortably rests.

Alexander Golin   2/25/16

<u>BandMate Paper Prototyping</u>

Design Overview

      I am working alone on this assignment, as this is an app idea that I would really love to personally develop and see through to the end myself. I have not made any dramatic design changes since the last phase of the design process, though I did do some minor cleaning up of the primary interfaces, and additionally, this phase was the first time I specified design of sub menus and popups to any degree.

Paper Prototype

Photo:

Scan:

Usability Session

      I conducted my usability session as the sole researcher, and solicited the consenting participation of my housemate, Connor Fallon. I recorded the entirety of the 23 minute usability session on video using my laptop, and I have uploaded a three minute segment to YouTube, which can be found at this link: https://www.youtube.com/watch?v=-a32XofGc8k&feature=youtu.be. I plan on viewing the usability session again as I further refine my design.

Design Critique and Analysis

      By and large, the user was able to complete the tasks without too much confusion, however there were certainly a few places for improvement. That said, I believe there are a number of issues that arose more from the lack of detail and intractability of the paper prototype. One of the biggest things that was brought to my attention, and it was something that I did anticipate, was that the icons on the bottom navigation tabs are not clear enough. In fact, they were so unclear and misleading that I am actually beginning to think a text based menu might be better, particularly given the esoteric nature of the Jam Now feature.

      The menus were another aspect of the design for which the user had very good suggestions. On the settings menu, it was unclear what aspects of the user's preferences would affect the matching

algorithm, so I plan on further delineating the differences between demographic information, algorithmic preferences, and general music taste information. I plan to address this by having fewer categories, which are more mutually exclusive than the present categories. I believe this menu will be subject to change as the application is developed, depending on how the algorithm is ultimately implemented at a technical level.

Similarly, the Jam Now options menu was unclear to the user. He was unable to decipher the differences between the three categories and could not ultimately infer what pressing each button would result in. Unlike for the settings menu, I think the issue here is less about improper categories, and more about the fact that users will not be inherently familiar with what the Jam Now feature can do. The user made a very good suggestion of including a brief tutorial that explains each option the first time the user uses the Jam Now feature.

Overall, the architecture of the application proved to be sound and logical, with menus appearing when and where the user expected them to. The user had a good understanding of what the application can achieve, and he had a good understanding of how to use the app after a rather short period of interacting with it. I plan on making changes to the design as outlined above, while trying to maintain overall structure as much as possible.

Alexander Golin   3/4/16
<u>BandMate Prototype</u>

Description

I designed my interface using the Sketch design application. Each screen is a still shot that I exported from the application, and then uploaded to an online prototyping service called Marvel. The final interactible prototype is located at https://marvelapp.com/dji240. The link is accessible by smartphone or by a desktop browser. Viewing this prototype on the iPhone allows the user to interact with the prototype similarly to how they would interact with the final product, however Marvel is slightly buggy on mobile. The desktop experience is somewhat more reliable, though it does not as closely model the user interactions of the final product.

I made no drastic changes to BandMate's design or architecture, though I incorporated some improvements that were discovered during the prior phase of paper prototyping. I made the switch to text based menus rather than logo based menus, and I also trimmed the options on the settings menu. I improved the JamNow interface as well, and made it clearer what options the user has when their JamNow status is turned on.

Individual Screens

Jammin Now

2 hrs 42 mins
(X)

Contest Jammers

Greg Wams — Guitar
Anjali Nair — Guitar
Jacob Katsia... — Guitar
Jordan Rosent... — Guitar
Jackson Clawson — Keyboard
Thomas Colgrove — Drums

Pair Me Up

Profile | Match | JamNow

Jackson Clawson
Keyboard

Yo when do you think you'll be free to play? Been working on a new song.

I've got class from 2-4 but then I'm chillin! Can you reserve a room in Granoff?

Yeah for sure! 5 oclock sound good?

5 oclock is great! See you then!

Message

Anatomy of Colors

When do you guys want to rehearse this week?

I'm pretty busy Wednesday and Friday, how about Thursday?

Thursday's no good for me, my girlfriend is gonna be visiting Saturday?

Tell Yoko to quit breakin up the band!

But yeah, Saturday is cool hahaha.

Message

Alexander Golin — Guitar
Nicholas Golin — Guitar
Jackson Clawson — Keyboard
Thomas Colgrove — Drums

It's A Band!

Message Band

Alexander Golin — Guitar
Nicholas Golin — Guitar

It's A Match!

Message Nick

Bands

Empires

Anatomy of Colors

Pond Puck

Matches

Jacob Katsiaficas
Guitar

Jackson Clawson
Keyboard

Thomas Colgrove
Drums

Settings

Profile Information >
Preferred Band Format >
Match Settings >
Linked Accounts >

Favorite Artists

Led Zeppelin | Tycho | Choke Up
Pink Floyd | Baroness | Old Gray
Pile | Smashing Pumpkins | Mitski
Nirvana | Tigers Jaw | Cloud Nothings

Favorite Albums

Temple of Plenty — Somos | Purple — Baroness | Get Disowned — Hop Along
The Albatross — Foxing | Led Zeppelin III — Led Zeppelin | Sore — Dilly Dally
Latitudes and... Signals Midwest | Joy Departed — Sorority Noise | Attack on Memory — Cloud Nothings

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Activity Feed

Alexander listened to Temple of Plenty by Somos
Alexander saved Nevermind by Nirvana
Alexander shared his playlist Headroom 3/2/15
Alexander followed Jonathan Ortiz
Alexander saved Black Coffee, Bad Habits by Ch...
Alexander purchased The Womb Bats by The Wo...
Alexander uploaded a new track Hazletons
Alexander listened to Temple of Plenty by Somos
Alexander saved Houses of the Holy by Led Zep...
Alexander shared his playlist Headroom 3/2/15
Alexander followed Jon Merwin
Alexander saved Black Coffee, Bad Habits by Ch...
Alexander purchased The Womb Bats by The Wo...
Alexander liked Nick Burka's track RGB
Alexander listened to Temple of Plenty by Somos
Alexander saved Nevermind by Nirvana
Alexander shared his playlist Headroom 3/2/15
Alexander followed Ben Tanen

Alexander Golin   2/25/16
<u>BandMate Usability Testing</u>

Key Findings
- Top navigation bar is potentially confusing. May look like labelling rather than actionable buttons.
- Unclear to users how bands form if they are thrown right into the application. There must be a tutorial upon first using the application to acclimatize the user to how it works.
- Settings should be accessible in a more direct way from profile page, rather than just from a submenu of the user page. Could include editability directly on profile sections.
- JamNow was one of the most liked aspects of the application. This feature could be further fleshed out.
- Users may want additional social information and options, such as mutual friends and the ability to use JamNow with multiple people.
- Overall response to the application was positive. Participants enjoyed using it, and most predicted they would use it frequently.

Summary

Overall, response to the application was positive, and users generally understood how to complete the tasks at a high conceptual level. It was very apparent during testing that for a more realistic evaluation a higher fidelity and higher functionality mockup would be required. User understanding was frequently blocked by the lack of an orienting tutorial, which would be a certain necessity for the final application. Overall, users thought that they would use this application, and they reported enjoying themselves while using it.

It became very clear that users would need a tutorial upon first using the application. Users were unclear on how bands were formed, and didn't understand what parameters were being used to determine their matches, so the next iteration of mockups must be more robust to include these details. In the tutorial, users would be walked through the account creation process, and will be asked to incrementally fill in personal information and link third party accounts. They will be familiarized with the three primary tabs of the application and will be explained the process of forming matches and bands.

In terms of the interface, a few main points became clear. The top menu of the profile page was somewhat confusing to users, and there may be a more elegant way to include these features. For example, the settings tab could be turned into small icons on specific portions of the profile, to make it more directly interactable. One idea was to have the lists of favorite artists and albums be editable like the home screen of an iPhone, where pressing and holding on an item makes it movable and deletable. Additionally, the JamNow interface might need to include slightly more information, and possibly more user options. Some users reported being unclear on what the Pair Me Up button does, and how many people they were allowed to jam with at a time. Users also wanted to know whether the listed jammers were people they already matched with, or if they were just random other jammers. On the Match page, users really wanted to be able to drag the profile card, which unfortunately wasn't an interaction available in Marvel, the service used to create the mockup. In a similar vein, some users wanted to be able to scroll through the rows of the profile card to be able to see other favorite artists and albums, though many users also liked being able to see the full list view as well.

Task List
- Match with another member
  - Inspect match suggestion
  - Accept
  - Reject
- Try to form a band
- Jam Now
  - Set timer
  - Cancel
  - Automatch
  - Choose a Jammer
- Edit Profile
  - Change band configuration
  - Link new accounts
  - Edit favorites
- Message Band
- Message Match

Debriefing and Demographic Questionnaire
Google Form Link: http://tinyurl.com/hc6frma
Responses are included at the end of the pdf. The responses are ordered according to participant number; the first is Participant 1, the second is Participant 2, and so on.

Raw Notes
Participant 1 Notes
- First thoughts
  - I'm on my profile, I was confused about the thing at the top, thought it was the header for the page, not another menu, thought it was the bands page.
- To match
  - Quickly see the match button
  - Sees someone elses profile
  - Wondering if the arrows will actually cast vote or just navigate to other suggestion
  - I assume it's similar to tinder, although they have an x and a like.
  - Looks like I matched
- Inspect match
  - Click on the card, went for the top name
  - Maybe pull the card down so it expands
  - Looks like clicking on the artists brings me to a list
    - Seems like he may not have fully expected the popup window
    - Its not initially apparent that it's something I could click on
  - Like the feature of being able to see what their interests are.
  - Maybe you could show mutual friends or mutual matches
- Forming a Band

- ○ Intuition to form band would be to keep matching
- ○ Looks like I just formed a band.
- ● JamNow
  - ○ Set the amount of time
  - ○ Hit button
  - ○ What can you do
    - ■ Realized he can clear jamnow status
    - ■ Contact other jammers
      - ● Maybe i could select multiple of them and contact them all
  - ○ Pair me up
    - ■ Makes me think its messaging one person.
- ● Edit match settings
  - ○ Go to profile, settings, match settings
- ● Edit favorites
  - ○ Settings, Profile Information
- ● Message a band
  - ○ Bands now that i know its navigation
  - ○ Looks like I'm in three bands
  - ○ Looks like a group message
- ● Message an individual
  - ○ Matches and same procedure.

Participant 2 Notes
- ● Initial Reaction
  - ○ Looks like a profile page
  - ○ Can't tell if it's my profile or someone elses
    - ■ Would probably be clear if not using sample data
  - ○ Nothing to indicate editing capabilities
    - ■ Edit button or the little dots on each section on the corner
  - ○ Found settings but only after a lot of searching
    - ■ Clicking around is fine he said
    - ■ If youre on your own profile, you should be able to edit directly from that page
    - ■ It wasn't hard to find, but it wasn't where he expected.
  - ○ I like the right hand justification of profile info
  - ○ Assume maybe the rows scroll but functionality is limited
- ● Try to match
  - ○ Went to matches tab on top
    - ■ Figured out it was people he already matched with
  - ○ Went to bottom match tab
  - ○ Can I go back to matches that I deleted already?
    - ■ I guess not.
  - ○ I could message him or go back.
  - ○ Accept or reject triangles are pretty easy

- ○ I thought you would be able to swipe to keep seeing other matches
- ○ Would prefer swipe interface
- Try to form a band
  - ○ Maybe go to bands
  - ○ I dont know where to set it up from there though
  - ○ Maybe go to matches
  - ○ How would I start a band?
  - ○ I can see there are bands that are already set up
  - ○ Can I add them from somewhere else.
  - ○ When I helped him find the proper accept button on Jacksons match, he understood it was because everyone matched with each other
    - ■ I feel like you should be able to go to your matches and make bands from your matches. Because maybe they haven't matched with each other yet.
    - ■ Like if you were able to pick a bunch of matches and start a band with these matches that might be interesting
    - ■ I like that it just tells you when everyones matched together, but what if you all matched but you dont wanna form a band with them.
    - ■ Maybe youre just lookin for matches.
- Changing preferences
  - ○ Match settings or profile information
  - ○ Figured it all out fairly easily
    - ■ But again feels it would be better from own profile page
    - ■ Or if i click on favorite artists….
    - ■ Like the idea of plus button and deletion or moving being handled like iphone apps
- Jamnow
  - ○ Immediately
  - ○ What is your intuition
    - ■ I'm gonna set a time or a length of time to jam
    - ■ I'm gonna guess it's how much time I have to jam, not what time
  - ○ Click JamNow
  - ○ JamminNow
    - ■ I can contact specific people who I've matched with previously
    - ■ I can get paired with other jammers
  - ○ If I leave the page and go back, i'd expect that it would still be running that time.
- Messaging
  - ○ Matches/bands and then click the items.

Participant 3 Notes
- Initial Reactions
  - ○ Reminds me of spotify
    - ■ Followers
    - ■ The circular images of the artists

- The activity feed is also kinda like spotify
- You can see what others are doing
- Oh but this is for personal activity
  - So this is like the activity log on facebook kinda
- Very easy to understand
- Brief overview of who you are next to pictures is nice.
- Try to match
  - Immediately went to match
  - I just looked for the word that made me think of matching
  - Matches vs match isnt confusing to me on profile page
  - Given the red and green triangles, right means accept, left means reject.
- Inspect your match further
  - Hesitation, not sure what I mean
  - Look at whats provided
  - I think its sufficient
    - Cool feature could be to click on each of the genres, then it gives a specific array of artists under those tags
  - Do you think there's a way to see more information.
    - Would you have thought to click on the artists or albums to see more.
    - Do you think that a row scrolling treatment would be better?
      - That could be cool
      - Even if there is a scroll I would still like to see the full view somehow
- How would you form a band
  - Would click on bands from profile
  - Understands the concept of all mutual acceptances forming a band
    - How to make this clear to user?
      - Wouldnt you still want control over what your band looks like?
      - Do you think a tutorial in the beginning would make it clear?
        - Yeah for sure
- JamNow
  - Found it easily
  - What do you think this is?
    - I would say the time is how long I'm available to jam for
    - Then you hit jamnow and you'll be available
- Jammin Now
  - I could choose any jammer i want and message them (he expected to be able to and was pleased that he could)
  - If you click pair me up, I'm not sure if it will pair me with one person or multiple people.
    - The match was what I expected, but it would be cool if you could choose how many people to pair me up with.
- Settings
  - Went to profile immediately
  - Then settings, then match settings

- Change favorites
  - I would go to profile information
  - Would you like to be able to interact from the full display of favorites?
    - Yes, i would like the little x's and an add button
- Messaging
  - I would go to bands/matches then click them to message.

Participant 4 Notes
- Initial Reaction
  - Clearly looks like a profile page
  - Slightly unclear if top bar is a menu or a title bar, could perhaps add more color to differentiate.
  - Nice minimal design, but could perhaps use a more poignant color scheme
- Try to match
  - Matches button at top could be confusing, but I'm used to the bottom bar navigation scheme in apps.
  - Went to Match tab.
  - Looks like Tinder
  - Would like to be able to swipe the card to accept/decline rather than press buttons.
  - Right for accept left for decline was clear.
  - Would like to be able to scroll through rows to see more of the suggestion's favorites.
  - Maybe show other friends that this person has matched with
  - Maybe highlight artists or albums in common
- Try to form a band
  - It wasn't totally clear from the mockup that bands would be formed automatically.
  - Had an inkling to go to Match tab, but wasn't sure what determined match vs. band at first
  - Became clear that band was formed based on mutual matches
  - Might be nice to have a tutorial during account creation explaining some of these nuances.
- Changing preferences
  - Went to profile, settings.
  - Would be nice to be able to edit favorites from primary menus. Maybe you could interact like an iPhone to reorder favorites or delete them.
- Jamnow
  - Seems like I'm going to specify a length of time I can Jam for.
  - I might want a little explanation at the top of the page instead of the quote, though I do like the quote, it adds some character.
  - Maybe this could be addressed when the user was first creating their profile.
- Jammin Now
  - I like the countdown, seems like I can cancel as well.
  - I can't tell if these are jammers that I've already matched with, or if these are random people who are jamming.

- ○ I'm not sure how many people the pair me up feature will match me with.
- ● Messaging
  - ○ Went right to matches and bands tab and pressed the icon to message. This made sense to me.

Participant 5 Notes
- ● Initial Reactions
  - ○ Seemed a little dark, could maybe use some more color.
  - ○ Could tell this was a profile page, but the sample data made it a little confusing.
- ● Try to match
  - ○ Immediately went to match
  - ○ Understood how to use the buttons, but commented that it would have been better to have a thumbs up and thumbs down, or maybe a swipe interface.
- ● Inspect your match further
  - ○ Tapped the artist row, and liked it, but said it would be cool to be able to drag the row as well.
- ● How would you form a band
  - ○ Had a hard time understanding exactly how a band was formed.
  - ○ Went to the Bands tab on the profile page first. Understood that these were already formed bands.
  - ○ Expressed the desire to be able to somehow manage bands from the Bands tab.
  - ○ Had to be explained the band formation process.
  - ○ Said that he would probably understand if he had seen a tutorial beforehand.
- ● JamNow
  - ○ Also had a slightly hard time understanding JamNow.
  - ○ Pressed the button and understood given the JamminNow page.
  - ○ Said that he probably would have understood if given a tutorial.
- ● Jammin Now
  - ○ Wanted to be able to form a group of Jammers.
  - ○ Wasn't sure if Pair Me Up meant with multiple people or just one.
- ● Settings
  - ○ Went to profile immediately
  - ○ Hit the Settings button
- ● Change favorites
  - ○ Wanted to be able to edit from the main list view.
- ● Messaging
  - ○ Went directly to Bands/Matches

Alexander Golin   2/25/16
                              BandMate Usability: Redisign, Implement, Reevaluate

Description of New Design
        I designed my interface using the Sketch design application. Each screen is a still shot that I
exported from the application, and then uploaded to an online prototyping service called Marvel. The final
interactible prototype is located at https://marvelapp.com/527acjg. The link is accessible by smartphone
or by a desktop browser. Viewing this prototype on the iPhone allows the user to interact with the
prototype similarly to how they would interact with the final product, however Marvel is slightly buggy
on mobile. The desktop experience is somewhat more reliable, though it does not as closely model the
user interactions of the final product.
        All in all, the design of BandMate is mostly the same. No additional features were added in this
round of reimagination, but instead, aspects of the user interface were reorganized and restyled. One of
the biggest alterations made to the design was a change in the color scheme. Rather than black and cream,
I tried to add more vibrant colors, based in dark blue and washed out orange. Additionally, the means of
viewing the lists of favorite artists and albums and the activity feed were updated. Now, the Profile and
Match pages have different interaction methods. On the Profile page, users can scroll through the
complete list of favorite albums and artists along the horizontal row, and they can press the edit button to
be brought to a separate page from which they can rearrange, add, and delete entries. This was chosen
rather than simply overlaying an image to make the interaction of the application more dynamic. The
activity feed at the bottom of the page will continue to scroll within its box, so it will appear never ending
to the user. On the Match page, users can opt to expand the display so that it takes up the entirety of the
body of the Match Card. Then the user can scroll through the entries (if there are more entries than can fit
in a single frame). This can then be collapsed again. Additional changes were made to the menu bars of
the application. In an effort to better define the areas as menu bars rather than headers, I increased the
shadow cast by the bars and added more visible partitions between tabs. On the JamNow page, I further
specified the status of other Jammers to make it clear that only previous matches show up there, and I also
developed the option for users to specify whether they want to be paired with an individual or placed in a
group to jam.

Response to Changes
        Overall, response to the changes was positive. Users enjoyed the new color scheme, and it elicited
more notable user reactions. Users liked the new ability to directly edit their profile display right from the
page rather than going to the Settings tab. Additionally, users liked the larger Match page's larger display.
The JamNow feature was made slightly more clear, but again, users found it rather confusing. They also
continued to find the band formation process opaque. All of this information reinforces my desire to
include a comprehensive interactive tutorial. Additionally, multiple users commented that the displays
seemed crowded, so I would like to try to space things out more, and also reduce the amount of text on the
screen by utilizing more icons.

Conclusions and Future Directions
        I would like to try to implement some basic functionality to this idea, and perhaps find a solution
that is more robust than Sketch and Marvel. I think I would like to make an HTML mockup where I can

have more dynamic control, and I would like to include a more comprehensive walkthrough experience in which the user is introduced to the application and is asked to fill in their information. I would like to continue to develop a brand identity by coming up with a logo and settling more stably on a color choice

Screen Shots
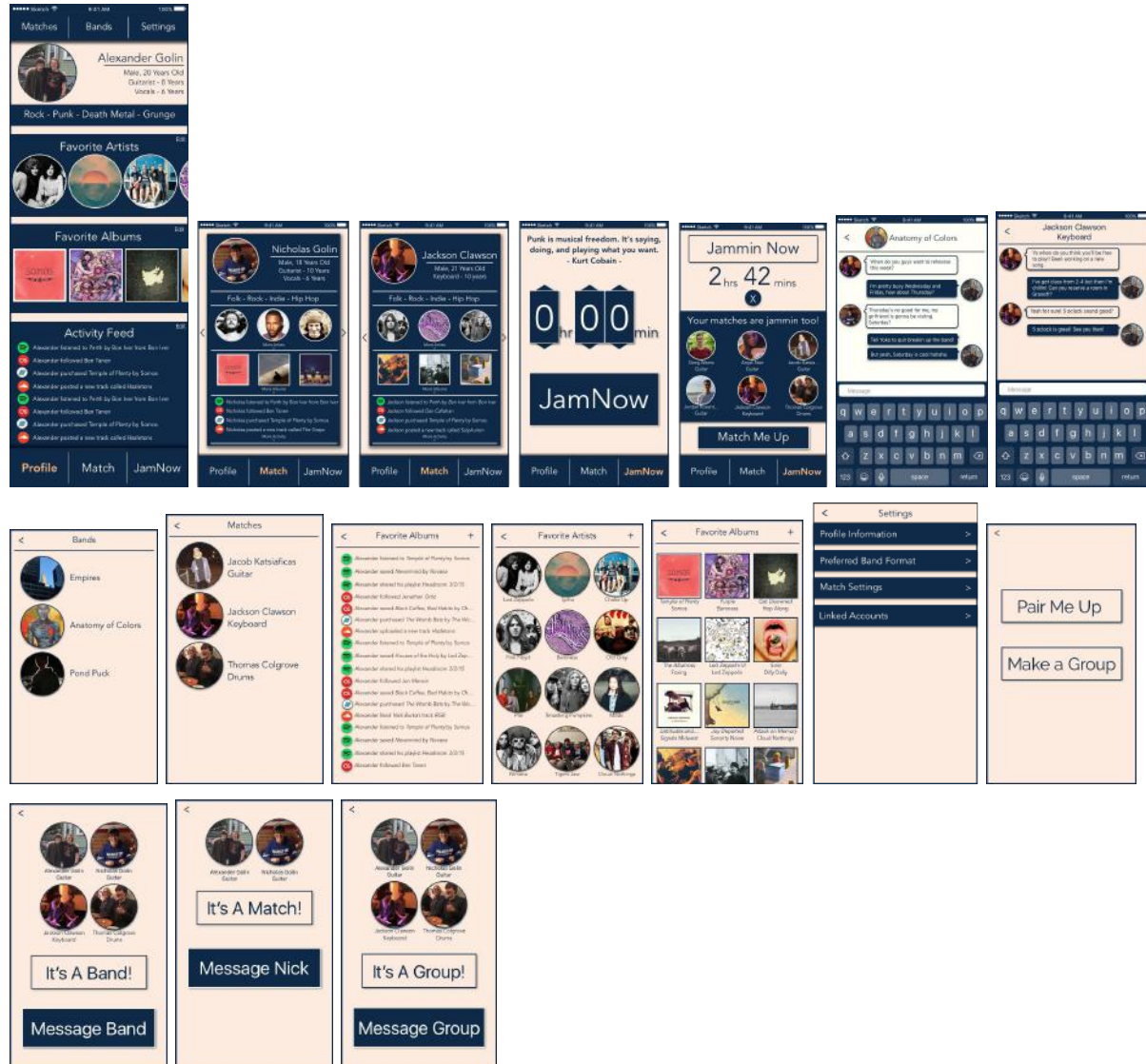
Task List
- Match with another member
  - Inspect match suggestion
  - Accept
  - Reject
- Try to form a band
- Jam Now
  - Set timer
  - Cancel
  - Automatch
  - Choose a Jammer
- Edit Profile
  - Change band configuration
  - Link new accounts
  - Edit favorites
- Message Band
- Message Match

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Raw Notes
P1
- First Reaction
  - Like the picture icons with the circles and the squares
  - Looks a little cluttered
  - I like the colors, like the blue and tan
  - I think this is a profile page
- Match with someone
  - I would go to match, no hesitation
  - I think id either click or swipe
  - I like visually this. This makes more sense visually than the profile page, everything feels more aligned
  - How to accept
    - I would hit the match button
    - I would maybe jamNow
    - Or a swipe right swipe left
    - Maybe a little popup that tells you swipe left for no right for yes and then they fade. At least the first time youre using it
  - To see more artists
    - Hit more and then id expect it to drop down and let me scroll

- Form a Band
  - Go To the jamnow tab
  - Is this what you expected?
    - Yeah but not the hours and minutes
  - I think this could be a virtual jam, a not in person kinda deal.
  - Or how many hours do you want to meet, but that would be less likely I think
  - Its a Band
    - People who have matched with each other
    - Are these just people who i have matched with or people who have all matched.
- JamNow
  - What do you expect to happen when you press the jam now button
    - Some kind of video chat or like different page where you can set something up in person.
  - Jammin Now
    - These are people who ive matched with who are currently jamming
    - I would click this guy and then match me up.
      - Does it make sense for it to be messages? Yes but id like to select and then match, actually now the messages confuse me about the time
    - I would say jam now, for how long, then the numbers, make it a little more clear.
  - Match me Up
    - It would do it randomly, or with people who are currrently jamming together.
- Profile
  - Change your match settings
    - Settings, then match settings
  - See you matches
    - Upper left match tab
  - See your bands
    - Bands tab
  - Change artists/albums
    - Edit, would expect a different page where you could edit.
    - Would like to hit multiple things and perform batch actions.
  - Activity Feed
    - Settings
    - Profile Information
      - Things about what type of info is displayed.
  - Linked accounts to include a new service.

P2
- First reactions
  - Lots of information which is good, but its verging on a lot compressed all at once. Maybe just spread it out more. I like the color scheme and the shapes.

- - For the buttons on the top and bottom I would maybe use icons a little more, cause there's a lot of text. Maybe a gear for settings, head for profile.
    - I think im looking at a profile page, probably your profile.
- **Match up**
  - I would go to match at the bottom
  - Its good, same sorta deal as last page, good info but more room for text at the bottom. I would maybe put one or two things, give it more room to breathe.
  - Accept the match
    - Hesitation
    - Without knowing what I was working on, he wouldnt know. Since I know its like Tinder. I would say it's not super intuitive, even they have buttons you can press.
    - I think a tutorial would be more annoying, buttons at the top or bottom would be nice.
- **Form a Band**
  - I dont really know how I got to the band page
  - Here's where I am, I matched with one guy, but I don't know where to go from there. I feel like going back would cancel the match
  - Give options, keep finding matches, etc
- **JamNow**
  - I think it sets a timer and it puts you in some sort of category where you're up for matching in the next x hours or something.
  - Jammin Now
    - I would move the x to the side of the timer
  - I don't really know where I am, I understand what is going on, but I dont understand what state my profile is in. Looking for someone to play with now state?
    - If I wanted to be matched I could just match me up, or I could tap one of my already made matches and it would pair us somehow.
  - Match Me Up
    - I would put something else, maybe a description of the options. Maybe an icon, page is kinda plain.
  - Matches
    - I would expect tapping a match to say, okay start jammin, it would say youre matched to jam for the next x amount of time.
    - Option like before where you can press to chat with the match.
- **Settings**
  - Match, then quickly profile, then settings, then match settings.
  - Matches
    - Matches tab, I would put that on the match page
  - Bands
    - Bands tab, but also should be under matches.
  - Activity Feed
    - No idea
    - Edit button makes it seem like which things show up, maybe disable last fm.

- - ○ Link account
    - ■ Settings link account
  - ○ Favorites
    - ■ Edit

- ● First reactions
  - ○ It looks like a pretty standard app setup type thing, bar at the top for various accessibility aspects
  - ○ I like that it brings me right to my profile, I can see what other people see
- ● Match with somebody
  - ○ Match on the bottom tab
  - ○ Im guessing I would just swipe
  - ○ Successful match page felt expected
- ● Form a Band
  - ○ Profile, Bands
  - ○ I would think I would click on bands but now that I do that it makes more sense that it would bring me to my current bands since its on the same bar as my current matches
  - ○ I would guess it were under match somewhere.
  - ○ Maybe through JamNow?
  - ○ Successful band
    - ■ So I'm guessing that these other people are people ive already matched with. Then my new match is the last component of the band
- ● Settings
  - ○ Settings, match settings
  - ○ Favorites
    - ■ Settings either profile information
    - ■ Or from my profile the little edit button, and id press the little plus button
  - ○ Activity Feed
    - ■ Edit, plus button
    - ■ From settings go to profile information, makes sense that it would be linked accounts though
- ● JamNow
  - ○ Setting a timer for the amount of time im available… im not a hundred percent sure about the Kurt Cobain quote. While it's cool, might be more useful to use it as a description.
  - ○ Jammin Now
    - ■ Looks like these are the people who I've matched with who are also currently in JamNow
      - ● Actually I'm not sure, partially because I don't know what my match list is, then I'd probably be able to interpret this easier.
      - ● Either current matches in jamNow or just other people in jamnow that still fit the criteria I'm looking for.
    - ■ Communicate with one of them

- Hit match me up
  - I'm guessing this is looking for either a one on one or an immediate band like experience.
  - Distinction between group and band
    - As somebody who's not really entrenched in the music scene there's not really a distinction. Maybe it's just more of a casual thing more than a group that would last a little longer.
- Messaging
  - I'm not 100% clear on the distinction between what the technical distinction is between clicking on an individual versus just hitting match me up.