Future Work

While the core functionality of PolyChord has been implemented, as we near the end of the time period for the development for PolyChord we are still left with work that still needs to be done. Unfortunately, due to the time period initially being quite constrained, and these constraints being further amplified from the current events, there is still a lot that wasn't implemented. To begin, here is a list of all of the remaining user stories.

Remaining User Stories

ID	User Story	Story Status
18	As a beginner in music theory I need to be able to see the proper name for suggested chords so that I can learn how the proper name relates to the chord.	W
31	As a beginner musician who does not play the keyboard I need to be able to see what notes I am playing on my midi instrument so that I can learn the theory better.	W
8	As a beginner in music theory I need to be able to play back any chords or notes I am using so that I can use PolyChord without a MIDI keyboard.	W
3	As an amateur musician I need to be able to look at common chord progressions so that I can experiment with making music.	W
6	As a registered user I need to be able to save chord progressions so that I can reference them in the future.	IP
11	As a beginner pianist I need to be able to see which note on a ledger line corresponds to which key so that I can understand which notes the chords are comprised of.	W
17	As a musician I need to be able to select different octaves to play so that I can learn chords for different situations	T
10	As an amateur musician I need to be able to look at the structure of different chords so that I can learn how to play new chords.	W
9	As a multi-faceted musician I need to have multiple instrument samples available to play so that I can hear chords in different timbres/contexts.	W
28	As a musician out of ideas I need to be able to see potential chord progressions so that I can make new songs.	W
27	As an amateur musician I need to be able to input MIDI files so that I can see their chord progressions.	W
39	As a musician who wants to see how I am progressing I need to see my accuracy in recognizing theory over time so that I can see how well I am improving my knowledge of theory.	W
45	As a user who has been doing work outside of PolyChord I need an option to upload progressions so that I do not lose that other work.	W
19	As a busy musician I need PolyChord to work on mobile devices so that I can experiment and learn on the go	IP
13	As a musician I need to be able to play a melody over the chords as it plays them back so that I can develop music further from my chord progressions.	W
14	As a musician I need an option for a metronome so that I can practice playing in time.	W
26	As a person trying to practice perfect pitch I need to have an option to listen to a chord and try to identify it so that I can improve my musical hearing.	W
30	As a musician who has read a lot of theory and is still struggling to write music I need to be able to see suggestions so that I can understand the theory and write songs.	W
34	As a musician who is having trouble learning the theory I need to be able to see how I can correctly play a chord I might be playing wrong so that I can improve my knowledge of theory.	W
4	As a beginner in music I need to be able to view the chords as they would appear on a staff so that I can see how they would appear in sheet music.	W
37	As a musician wanting to learn basic music theory I need tutorials in the app on concepts of music theory so that I can improve as a musician	W
43	As a registered PolyChord user I need to have independent volume control so that I can have more control over my experience.	T
44	As a person with a non-conventional keyboard I need to be able to rebind keys so that I can more easily enjoy the app.	W
46	As a user confused about how to use PolyChord I need to have a help menu so that I can better understand the app.	W
25	As a person who enjoys music I need to be able to look at what songs have the chord progressions I am looking at so that I can find music that I will enjoy.	W
24	As an amateur musician I need to have sight reading exercises so that I can improve as a musician.	W
5	As a beginner guitarist I need to be able to view chords as they are played on a fret board so that I can easily understand how to play these chords on my instrument of choice.	W
41	As a former user I need to be able to delete my account so that I no longer need to worry about my account.	IP
47	As a user who wants more customization I need to have an option to toggle the musical note names over the on-screen keyboard so that I can remove some clutter from the screen.	W
15	As a musician I need an option to play with different drum patterns so that I can hear the chords in context with a rhythm.	W
16	As an amateur musician I need to be able to select the 'feel' of chord progression so that I can learn chord progressions that fit my playing styles.	W
20	As a beginner in music theory I need to be able to select different clefs to display the ledger lines with so that I can learn to recognize the chords in any clef.	W
21	As a music teacher I need to be able to share what I have done with students so that I can use PolyChord in my classroom.	W
23	As a user of PolyChord I need to have an option to report bugs so that I can help improve the application as I use it.	W
49	As a user who wants more content I need keyboard skins so that I can customize my account more.	W

Plan for Future Work

As you can see, there are many remaining user stories. To break this down, we will discuss what the priorities are moving forward, and which user stories they relate to.

- Accounts

  - We have been working on user accounts, but they have not been finished. Many of the functionalities we want to implement rely on accounts so it is important we get this implemented as soon as possible.
    - 6 - As a registered user I need to be able to save chord progressions so that I can reference them in the future.
    - 41 - As a former user I need to be able to delete my account so that I no longer need to worry about my account.

- Implement More Sounds for the Synth

  - We want to prioritize the addition of more sounds to the synth because it is a relatively easy addition and adds a lot to the user experience by allowing for more diverse sounds and for the user to select what they find most pleasing to listen to.
    - 9 - As a multi-faceted musician I need to have multiple instrument samples available to play so that I can hear chords in different timbres/contexts.

- Chord Training

  - We want to add chord training because it encourages further exploration by showing the user chords that they may not have realized otherwise.

- 10 - As an amateur musician I need to be able to look at the structure of different chords so that I can learn how to play new chords.
- 34 - As a musician who is having trouble learning the theory I need to be able to see how I can correctly play a chord I might be playing wrong so that I can improve my knowledge of theory.

- Chord Progression Building

  - We want to implement the chord progression builder because users coming up with chord progressions is a natural consequence of experimenting with chords. By allowing users to build and save chord progressions in the app itself we can provide a more holistic experience. The chord builder also would naturally also include the ability to play back and view these chord progressions.
    - 6 - As a registered user I need to be able to save chord progressions so that I can reference them in the future.
    - 13 - As a musician I need to be able to play a melody over the chords as it plays them back so that I can develop music further from my chord progressions.

- Tutorial

  - While we strive to make PolyChord as intuitive and minimalist as possible, inevitably people will get confused. A simple tutorial would go a long way in ensuring users understand how to use PolyChord and what it is.
    - 46 - As a user confused about how to use PolyChord I need to have a help menu so that I can better understand the app.

- Lessons and Training Exercises

  - Alongside the chord training which is very free form, we also want to add some more structured lessons and exercises to provide users with a solid foundation to build off of with their own experimentation.
    - 3 - As an amateur musician I need to be able to look at common chord progressions so that I can experiment with making music.
    - 24 - As an amateur musician I need to have sight reading exercises so that I can improve as a musician.
    - 26 - As a person trying to practice perfect pitch I need to have an option to listen to a chord and try to identify it so that I can improve my musical hearing.
    - 37 - As a musician wanting to learn basic music theory I need tutorials in the app on concepts of music theory so that I can improve as a musician
    - 39 - As a musician who wants to see how I am progressing I need to see my accuracy in recognizing theory over time so that I can see how well I am improving my knowledge of theory.

- General Improvements

  - Here are some user stories that are improvements we find important and want to prioritize, but didn't really fall into a broader category.
    - 14 - As a musician I need an option for a metronome so that I can practice playing in time.
    - 15 - As a musician I need an option to play with different drum patterns so that I can hear the chords in context with a rhythm.
    - 43 - As a registered PolyChord user I need to have independent volume control so that I can have more control over my experience.