



Practice Bud-E

Case Study ★ April 22 2022



{ Chapter One }

Introduction

Practice Bud-E

UX Research

UX Design

Branding

3D Design

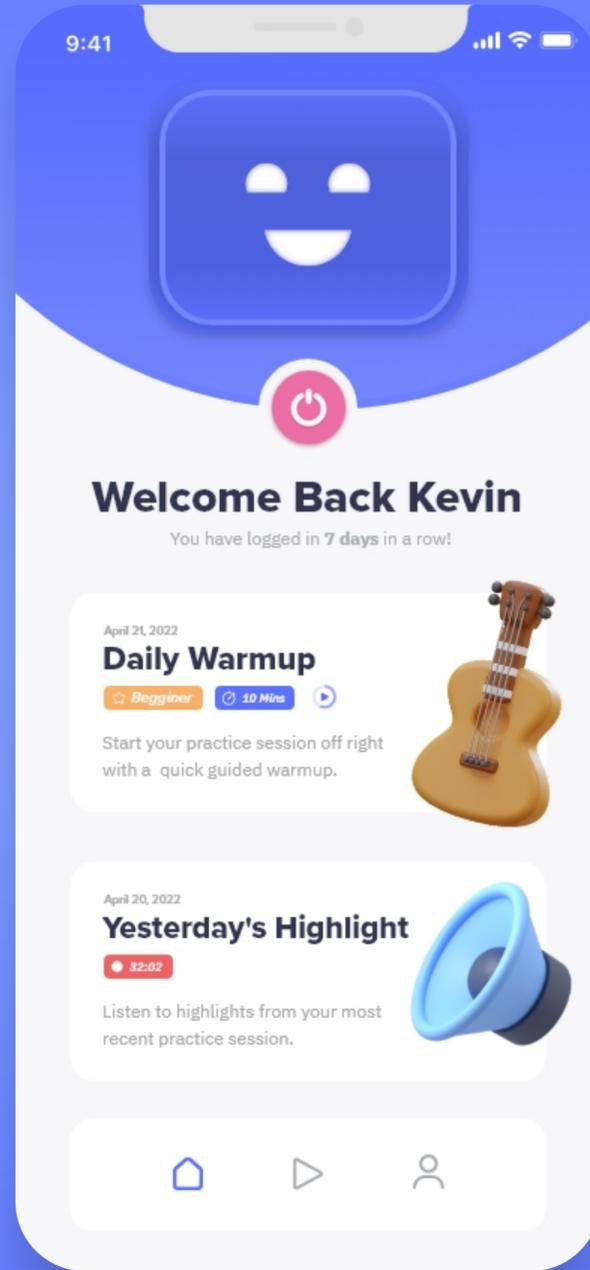
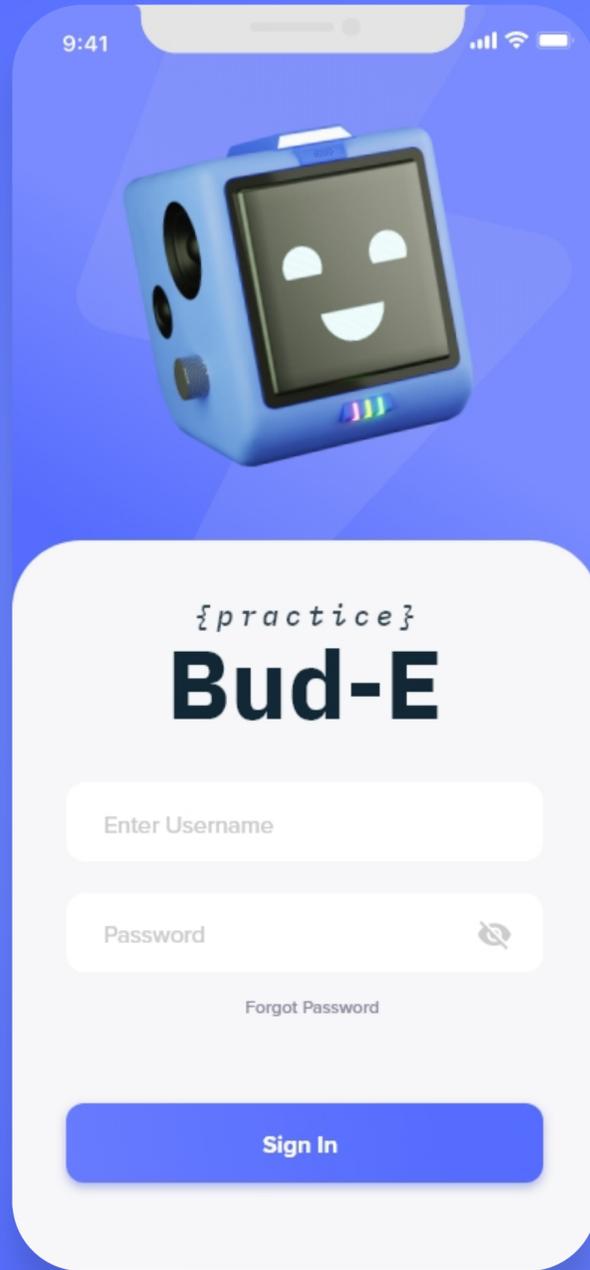
Project Management

This project is the final consolidation of my Interaction Design thesis. Over the course of 2 semesters I took on multiple design roles and worked to better understand this problem through the use of UX research methods, design thinking and iteration.

Duration: 20 Weeks

Tools: Figma, Illustrator, Blender, Mural, Notion

{ Final Product Preview }



Problem Space

With so many distractions diverting today's youth, learning a new instrument can often feel like a **discipline** or chore. Through extensive research I discovered that today's youth suddenly lose interest in their music lessons and instruments at the beginning of their teen years - surprisingly, however, it's during these years that their overall interest in music increases significantly.

Why the paradox ?

{ Solution }

A musical companion that helps teens to develop practice habits and find value through expressing themselves with music.

Meet your new

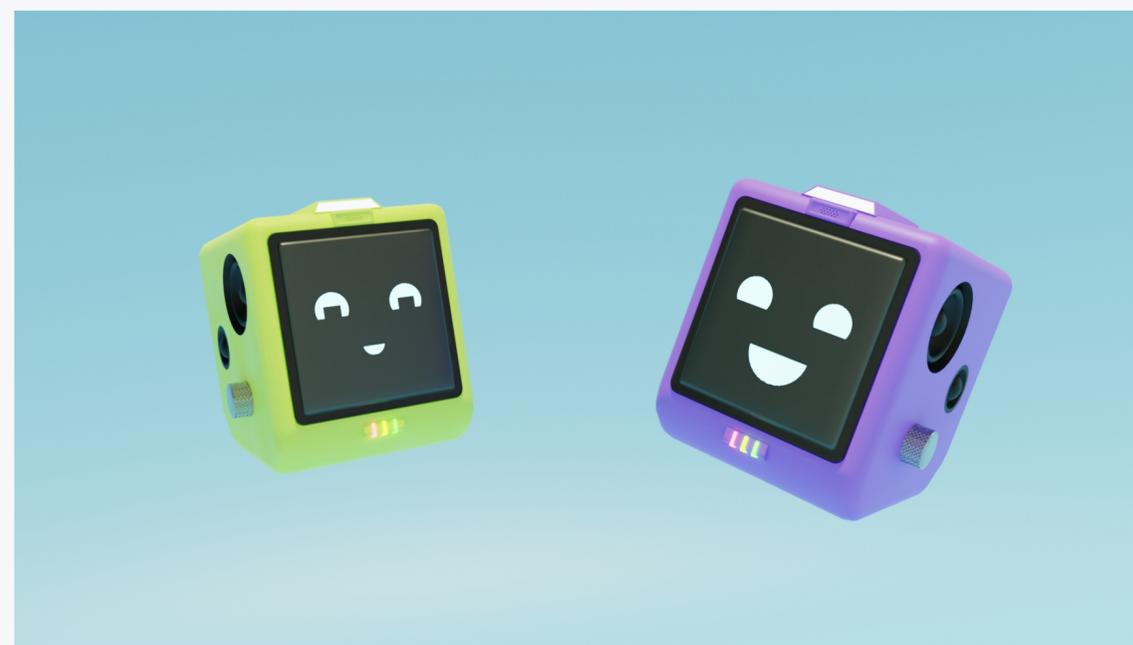
PRACTICE BUDDY



{ Define }

What is practice Bud-E ?

Practice Bud-E serves as a guide and mentor to help users discover their unique voice in music. By employing a creation first learning approach and prioritizing self expression in music over mundane theory lessons, Bud-E helps users navigate music by putting user interests first and uncovering a unique and ideal path for success.





{ Chapter Two }

Process

{ Process }

Design Phases

Research

Organize Insight

Design

User Test

Iterate

Deliver

{ Process }

Research Methods



Competitive
Analysis



Online
Forums



Youtube
Videos



Literature
Review



User
Interviews



User
Testing



{ Chapter Three }

Research



How might we...

Teach teenagers enough music theory to make music on their computer that they feel comfortable sharing with their friends, as a hobby.

 *Who*  *What*  *How*  *Why*



I wrote out a “How might we” Statement to reframe the problem and have a project vision that I could turn to when making design decisions.

{ Research }

Assumptions

Using my assumptions and secondary research to create a framework for my interview questions, I was able to analyze which of my assumptions were valid, and which were not.

This was an important learning moment as the feedback I received was really helping me dive deeper into my problem and discover areas where students lacked the most support. It also helped me to rule out assumptions and problems that I thought were bigger than they actually were.

1. Students hit roadblocks, then quit
2. Self taught online learning is overwhelming
3. Fear of judgement keeps students from creating
4. Students forced into learning have less motivation
5. Financial barriers prevent students from learning

1. Students hit roadblocks, then quit

{ Assumption }

- + Is the rate of failure even that high ?
- + How is failure being defined by the student ?
- + Are students learning what they want ?



An example of how these main assumptions would help guide my research questions

{ Research }

Research Synthesis

The following is a collection of data collected from User Interviews, Online Forms, literature, and competitive analysis.

This section is fairly dense with information, but in an effort to be transparent about my process I want to show this research as it offers multiple moments of insight that effected my final design solution.

If data bores you, please feel free to skip to the major takeaways section (pg. 25)





{ Chapter Four }

Insight

Summary of findings

Validated Students hit roadblocks, then quit

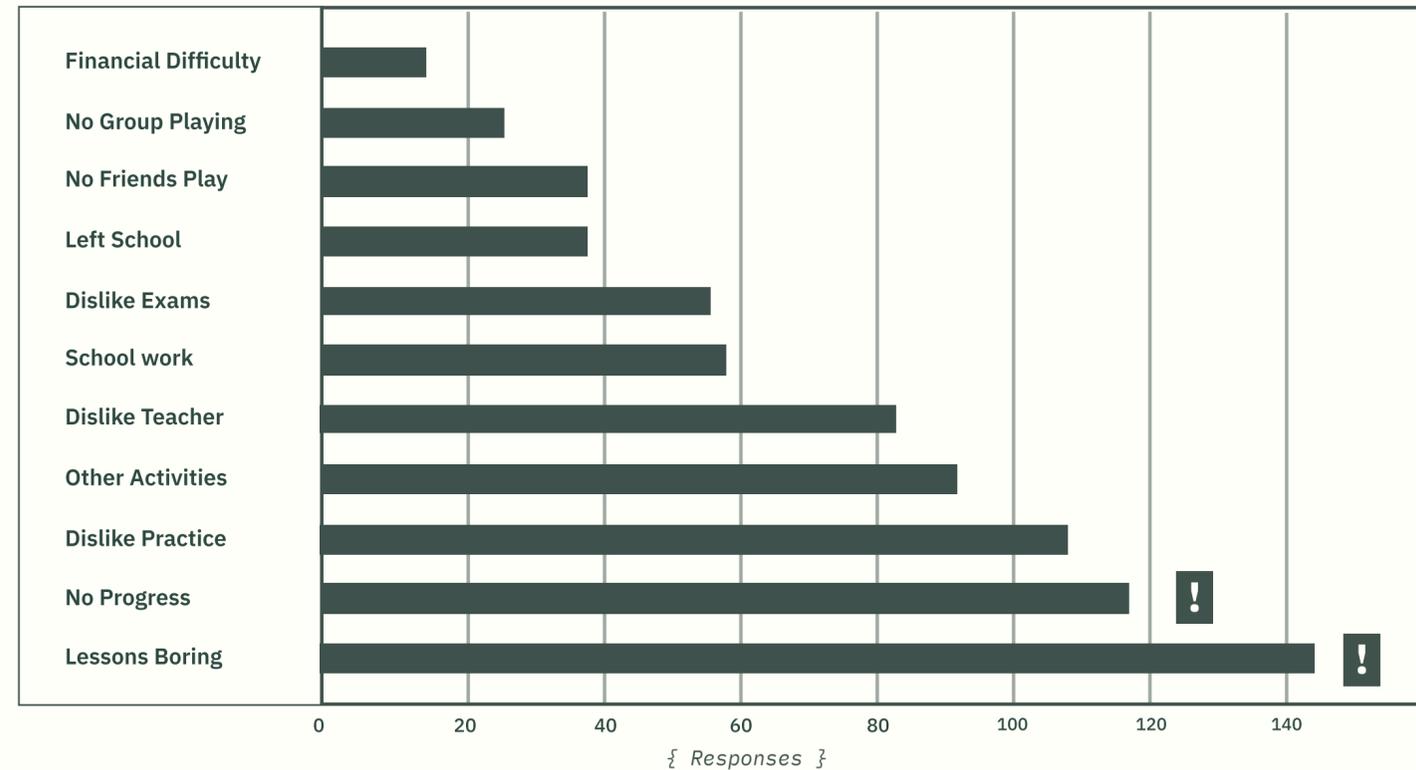
Feelings of getting stuck and not progressing were common throughout my research. It was clear that users would hit roadblocks, and when they did it was common to feel that they couldn't achieve their initial goals.

Many users expressed that time spent creating were some of the most profound moments of their learning. While time spent practicing things they had no interest in were where most difficult. Many of those I interviewed that had decided to quit pursuing music, shared feelings of regret. "Quitting" or "giving up" were terms thrown around a lot but upon further investigation students viewed their lack of interest as more of temporary thing. Some students suggested they were just waiting for the right motivation to get started again.



Frequency of reasons cited by respondents for giving up lessons

{ Driscoll, Jennifer 'If I play my sax my parents are nice to me' }



“ I periodically go through quitting music, If I don't have anywhere to play, or anyone to play with I stop for a bit. I need other people around me engaging in it, or some kind of community to be involved with. !

{ Interviewee #2 }

“ My guitar is collecting dust, but I see my ideal self riffing on it. !

{ Interviewee #3 }

! I've been learning other peoples stuff for so long I don't know if I have any creativity left. Maybe its just impossible for me. !

{ Ultimate Guitar Forum post #1 }



Competitor Analysis



Interview Quotes



Forum Quotes



Literature Reference



Moment of Insight

Summary of findings

Invalid Self taught learning is overwhelming

My initial assumption was that in the age of the internet, new learners would be overwhelmed by the amount of choices and information available. While There were some cases during my research that this idea was proven to be true, there was also a resounding amount of students that expressed the access to information was nothing but a good thing for there learning, despite it sometimes being overwhelming.

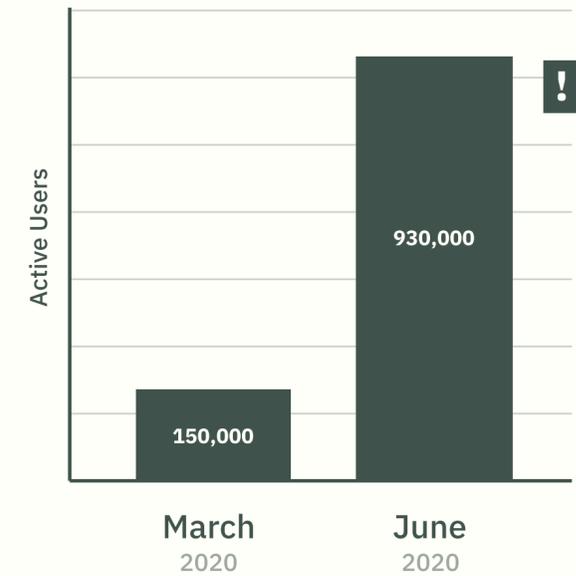
My study also found that due to the Covid-19 Pandemic, Guitar sales were reaching an all time high, which raises the question, was it always just a matter of time and space for some learners ?



Guitar Sales Effected by Online Learning

Guitar sales have bounced back in a big way, with the Times reporting that "young adults and teenagers, many of them female, are helping to power this guitar revival, manufacturers and retailers said, putting their own generational stamp on the instrument that rocked their parents' generation while also discovering the powers of six-string therapy."

According to the article, Fender's guitar-instruction app, Fender Play – which offered a number of free trials over the lockdown period – saw its user base increase from 150,000 to 930,000 between late March and late June, with close to 20 percent of the new users under 24, and 70 percent under 45.



{ Article #2 }



Theres lots of good resources online. Whenever I want to learn to do something I just look it up and can find exactly what I was looking for.

{ Interviewee #5 }



Getting started I found so many great apps that can hold your hand through the whole process at the beginning

{ Interviewee #4 }



Whenever I get inspired, or motivated to improve my skills, start writing more songs, and really getting involved with it, I always get stuck, feel overwhelmed with how much there is that I need to learn about, practice, and master, then I "take a break" for a few more weeks and repeat the cycle. Having Adhd makes this process even worse

{ Reddit Forum post #1 }



Competitor Analysis



Interview Quotes



Forum Quotes



Literature Reference



Moment of Insight

Summary of findings

Validated Fear of judgement keeps students from creating

One of the main objectives of this project was to get students of music interested in creating. There are tons of people that spend years studying music, but never learn or bother to create their own music. One of the big assumptions going into this was that the reason for that was because people were afraid of the judgement from others.

From my interviews alone this was proven to be true on pretty much all counts. There was a ton of fear expressed over how others would view ones self expression. It was also found that many felt as though they lacked some kind of intangible skill required to create.

I feel that everything has already been made. Im not original or smart enough. So why bother.

{ Interviewee #1 }

I've studied piano and music theory for many years, but I have never been able to write something of my own. Everytime I try, my insides feel like they're being synched up with barbed wire, I can't sit still, I can't focus. I'm terrified of messing up, even though I know music is so versatile and the only way to mess it up is not to write anything. Does anyone have some advice for getting past this? I'm tired of being afraid.

{ Reddit Forum post #2 }

I took group lessons, It felt terrible. Like I was constantly comparing myself to another.

{ Interviewee #2 }

I get really scared presenting because its so personal. Especially when there's singing, its so raw.

{ Interviewee #3 }

With learning the guitar, it feels like im doing a worse job playing something that's already been made.

{ Interviewee #2 }



Summary of findings

Validated **Students forced into learning have less motivation**

Participants that were forced into music lessons at a young age viewed the experience negatively across the board. Interestingly students that were not forced into music school commonly shared that their interest for music peaked in their early teens, and feelings to pursue music pushed them into teaching themselves.

“A common phenomenon among young music students occurs when they enter their teenage years – they suddenly lose interest in their music lessons and instruments. Surprisingly, however, is that it’s during these years that their overall interest in music increases significantly. Why the paradox?”

{ Esther Murimi }



Reasons young people have never wanted lessons

The reasons most commonly cited for not wanting instrumental tuition (of those supplied) were ‘I think it would be boring’ and ‘I’m just not interested in music’ together accounting for over half of all responses.

Ten percent of respondents had tried instruments and did not enjoy tuition, 4% taught themselves at home. Respondents were able to tick more than one reason if applicable.

33%
Think it would be boring

10%
Tried, but didn’t like

17%
Have not thought about it

22%
Are just not interested

8%
Have no one to play with
{ Friends / Family }

6%
People would laugh at me

4%
Teach myself at home

{ Driscoll, Jennifer ‘If I play my sax my parents are nice to me’ }

“ I remember my biggest issue was I that I wasn’t playing the type of music I was listening to. It was very formal and traditional. To add to that, my teacher wasn’t making it very fun, it was treated more like a discipline”

{ Interviewee #2 }

“ My parents never forced instruments on me...It wasn’t until I was maybe 13. I would take an interest in garage band and that took up all my free time.

{ Interviewee #3 }

“ My parents put me into music when I was 3. So it was never like I took the initiative myself...I look back and remember that I played piano for 10 years but I don’t feel like im at the skill level I should be. I feel like I just coasted threw all those lessons.

{ Interviewee #1 }



Competitor Analysis



Interview Quotes



Forum Quotes



Literature Reference



Moment of Insight



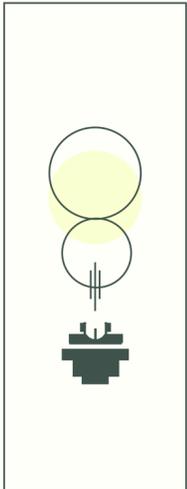
Moment of Discovery

User insights

Realization The value in community

My findings found that users valued working with others. Sharing with friends was a great way to find a sense of community in music. This community was a major driving factor for many users, as collaboration was valued over performing alone. Having the chance to share with others in a **safe space made users feel more creative.**

Aside from these findings found during the interview phase, I also found that online there were multiple **communities dedicated to helping new learners find pathways to success.** This was a learning moment for me as I had underestimated the value of community before, and had not considered how it could be used.



“ I periodically go through quitting music, If I don’t have anywhere to play, or anyone to play with I stop for a bit. I need other people around me engaging in it, or some kind of community to be involved with.

{ Interviewee #2 }

“ I mostly just wanna share with my friends and hear their feedback. Im not expecting to blow up.

{ Interviewee #4 }

“ I look up to a lot of musicians that surround me. Having the context of other people had a big impact on my learning for sure.

{ Interviewee #6 }

Research

While doing a competitive analysis. I noticed that there was a gap in the learner market. I could not find many apps that emphasized the value of community in learning.

Research

When searching through internet forums, I found that there was an abundance of users willing to help new learners. This dynamic in online spaces emphasized the value of community.

How can I Pivot ?

Should my solution focus more on the community aspect of learning music ?

How could I implement the positive aspects of communal learning into my solution ?



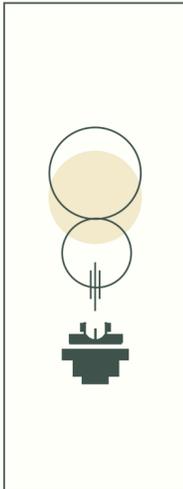
Moment of Discovery

User insights

Realization Understanding music theory is a user want

My interviews and online findings indicated that **understanding music theory is a skill sought after more commonly than I had initially anticipated**. I thought many younger learners would value a less structured and more experimental methodology but my research concluded that even those who valued experimentation still saw and understood the importance of theory.

Many of these user groups emphasized a desire to learn theory, but felt that the teachings that they had tried previously **did not match their learning style**. These attempts at learning theory took away from what drew these users to playing music in the first place, leaving a bad taste in their mouth and keeping them from understanding further.



“ Music theory has kept me from creating because its intimidating and I don’t understand all of it. But I know you need it.

{ Interviewee #2 }

“ I love to create. But I know without theory that my tool belt is limited with how I can express myself.

{ Interviewee #6 }

“ I realized I have been over complicating things for like 30 years because I never learned theory. I intuitively know lots of stuff, can jam with anyone... but I don’t understand what I am doing.

{ Youtube Comment #1 }

Research

While doing a competitive analysis. I noticed that many music teaching apps had a hard focus on teaching technique over theory. This could be a reason for why many never properly learn.

Research

From my literature review one survey suggests that most learners quit because they found the lessons boring. How can learning be more engaging to users?

How can I Pivot ?

My solution should focus on engaging users in the teaching of music theory over technique.

Can teaching music theory feel less like a discipline and more be more hands on.



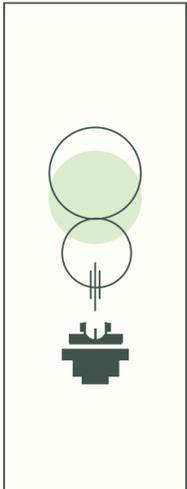
Moment of Discovery

User insights

Realization Theory should be catered to the user

Many of my interviewees reflected on their relationship with learning music. It was clear that most learners had **tough experiences while learning in a traditional setting**. Many of these experiences would go on hinder the growth of the learner. A common theme found among the participants was that many felt that **the lessons were not being geared towards their learning styles**, and many of the ideas in theory were not tied to anything the students could relate to.

This in turn caused many to view music as more like an academic. While a majority of users started learning in an effort to properly learn theory, many became bored and bothered by the process, causing them to lose motivation and interest all together.



“ If there were clever ways to learn music theory, I would definitely do it, but the thing is that when I hear music theory, I start thinking about school.

{ Interviewee #4 }

“ I couldn't play the music I was listening to. I was all very formal. To add to that, she wasn't making it very fun, it was treated more like a discipline...I felt like I couldn't progress because there was nothing I wanted out of it.

{ Interviewee #2 }

“ **Aha!**
If I could see how music theory is applied to real popular songs, I think that would be really helpful.

{ Interviewee #6 }

Research

! Lots of the music learning apps were found to use popular songs in their advertising strategies. Teaching users how to play a song they love is an effective tool to get users interested.

Research

! Many of the online forum discussions related to a specific genres of music. Self taught users were learning through their own musical influences, but getting lost without base theory knowledge.

How can I **Pivot ?**

My solution should cater to a users specific interest in music to keep them interested.

Theory should be taught in terms of relevance to the users needs / goals.

{ Insight }

Major Takeaways

From Research

1. Students hit roadblocks, then quit

2. Self taught learning is empowering

3. Fear of judgement keeps students from creating



Assumptions
{ Validated }

1. Students Value Community in learning

2. Learners want to understand music theory

3. Theory should be catered to the user wants



Discoveries
{ Re-thinking problem }

Problems to consider

⬇️ ⬆️ Pivot | How can I pivot accordingly ?

⬅️ **Users lose interest when teachings aren't relevant to interest**
➡️ How can theory be taught in terms of relevance to the users needs / goals

⬅️ **Lack of community can keep users from pursuing further**
➡️ How can the solution implement the positive aspects of communal learning

⬅️ **Focus on technique keeps students from learning musicality**
➡️ How can my solution engage users in the teaching of music theory over technique



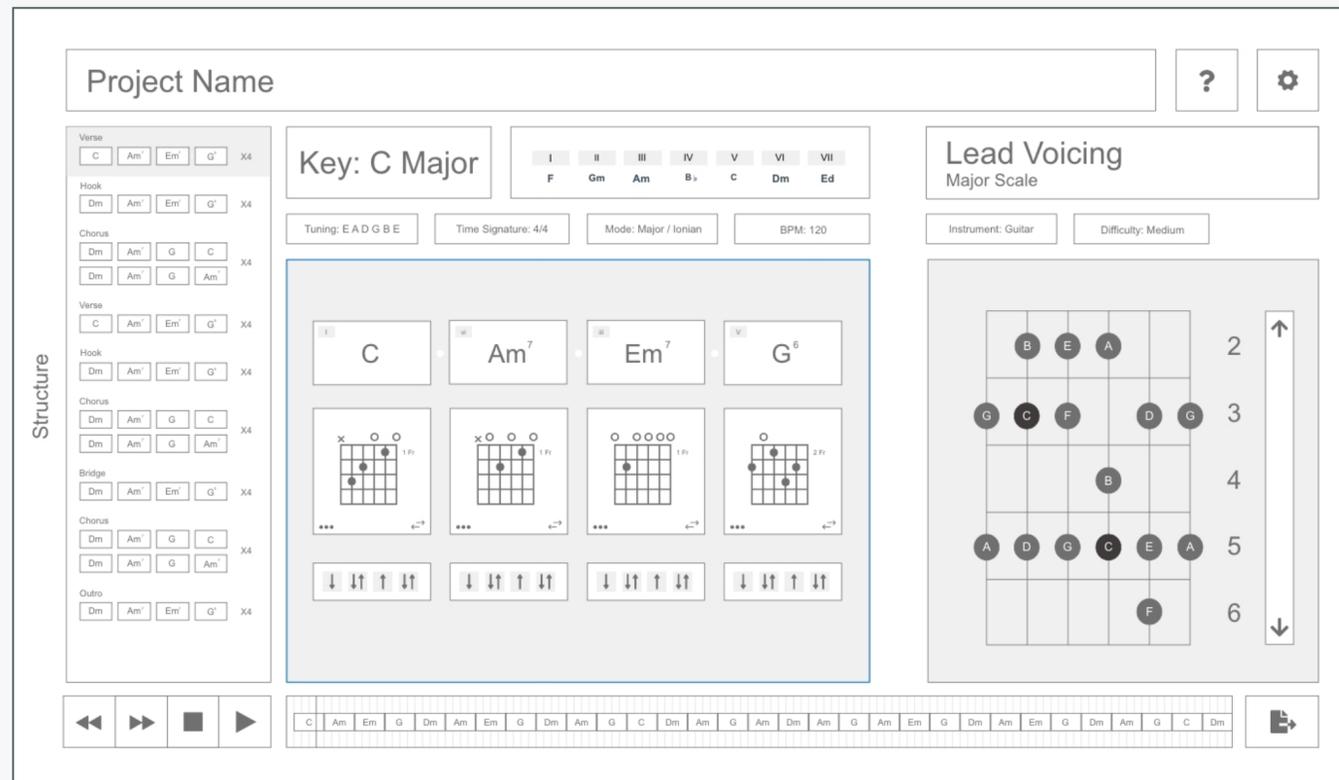
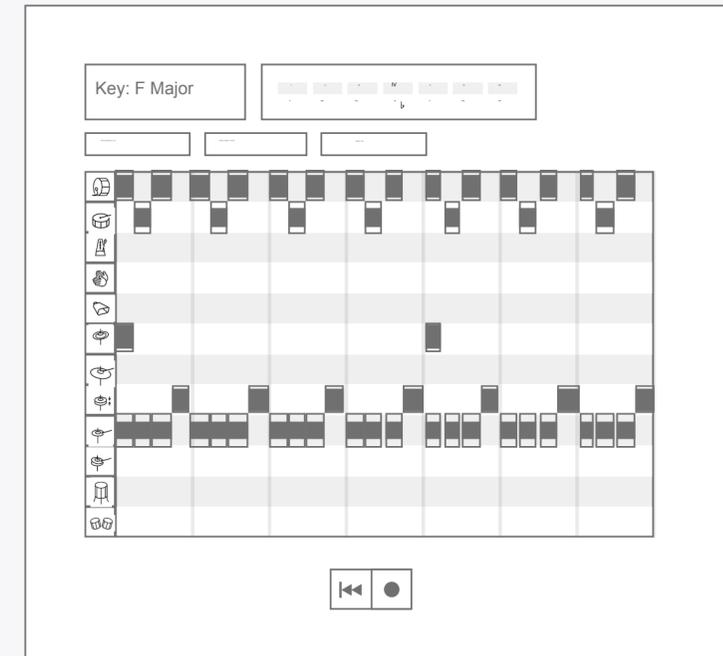
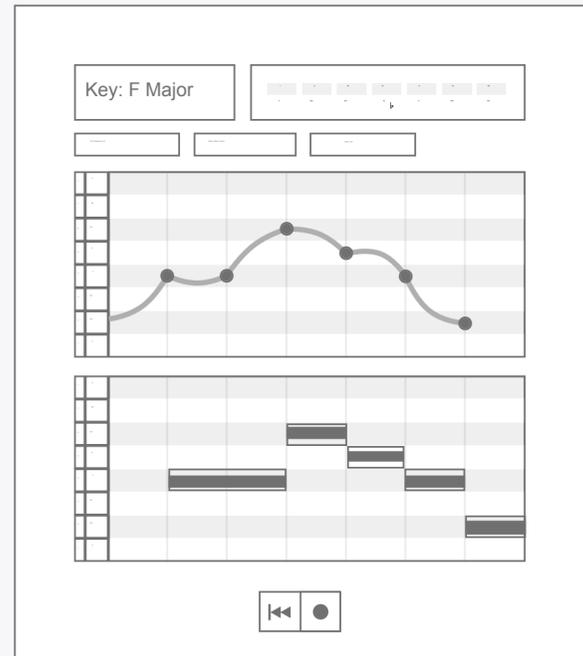
{ Chapter Five }

User Test

{ User Testing }

Prototype

Based off of my research findings I began creating a list of feature ideas and low fidelity mockups. Initially it was my plan to flesh out these designs further and create a wizard of oz prototype for user testing.



{ User Testing }

User Grouping

I created a short list of goals I wanted my users to reach by the end of testing and divided my user groups into 3 different sections. Although my target audience was focused on beginners, I wanted to gain the perspective of those who were currently in the middle of their learning. When choosing participants for my user testing I kept these groups in mind.

Some users surprised me with their knowledge and understanding of music theory so groups were assigned after testing was completed.

1.

Can Users actualize a musical idea

2.

Users leave the session proud of what they made

3.

Users learns 1-3 new things

{ User Testing }

Persona Spectrum

Absolute
Beginner

1 Has almost no experience with music theory / song writing

Adventurous
Learner

2 Has some experience with instruments and basic theory concepts. Lacking songwriting experience

Intermediate
Player

3 Someone who has experience creating music and playing instruments, but wants to get better.

{ User Test }

Primary Prersona

Absolute Begginners



Lucas

{ Aspiring Hip Hop Producer }

Age: 19 Skill Level: Absolute Beginner

About

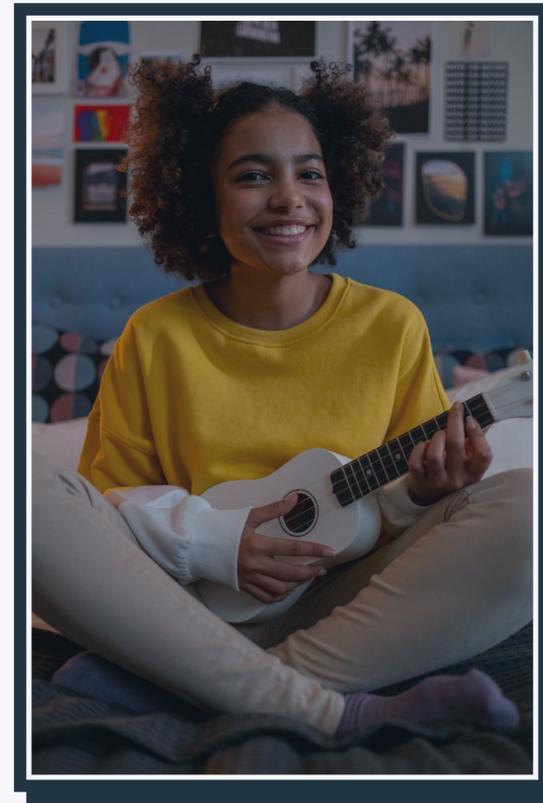
Lucas is a recent high school graduate looking to pursue his passion for music further. He already has experience making beats with software like Fruity loops and Ableton. Up until this point he has relied on sampling and chord plugins for his DAW to guide his musical creations. Lucas wants to expand his musical abilities by further understanding music theory concepts.

Goals

- Understand Chords
- Learn circle of fifths
- Create original arrangements

Pain Points

- No physical instrument ability
- Doesn't want it to feel like a chore
- Limited amount of money



Alicia

{ Aspiring Guitar Player }

Age: 17 Skill Level: Absolute Beginner

About

Alicia is a high school student that is interested in learning how to play the guitar. She has already taught herself how to play some of her favourite songs on the ukulele but wants to pursue things further. She is less interested in playing covers now and wants to focus on writing her own material. She wants to understand how her learnings on the ukulele translate to other instruments, and how theoretical concepts are used in the context of song writing.

Goals

- Write own original music
- Learn to improvise
- Write original music

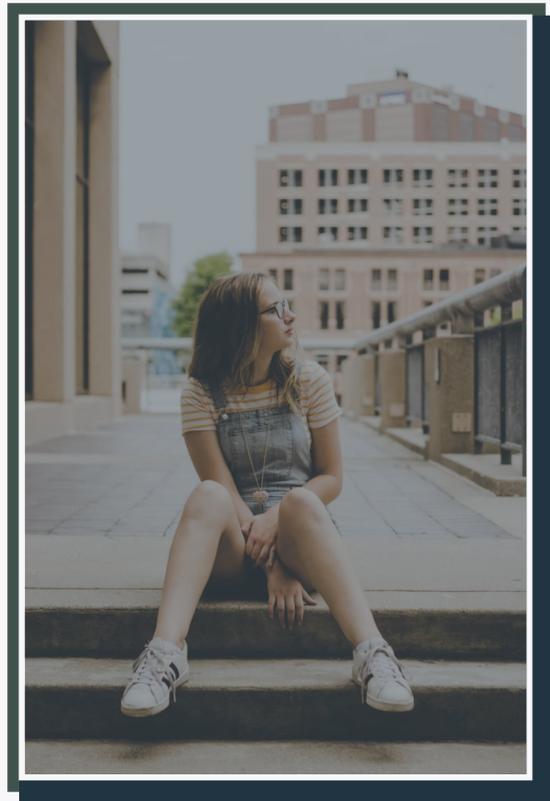
Pain Points

- Unsure where to start
- Can't communicate musical ideas
- Can't afford formal lessons

{ User Test }

Secondary Persona

Adventurous Learner // Intermediate Songwriter



Joni

{ Bass Player }

Age: 18	Skill Level: Adventurous Learner
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About

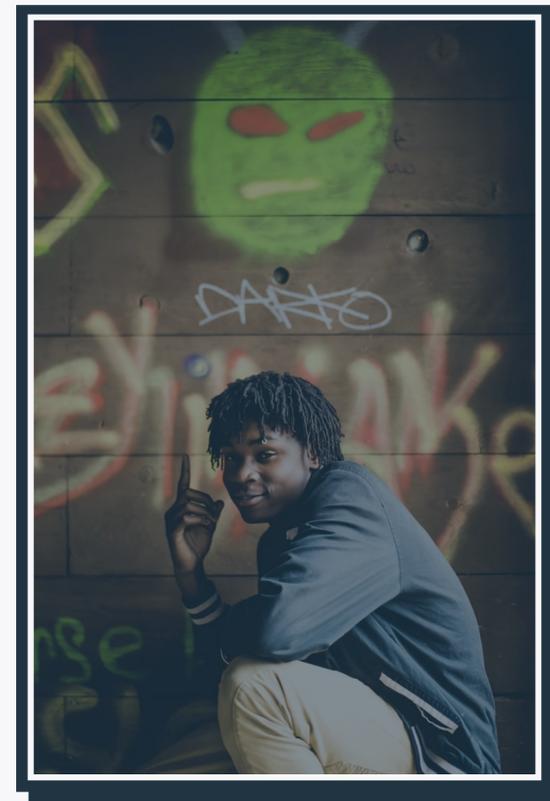
Joni has been playing bass for the past 4 years. She had originally taken formal lessons but has decided to stop and transition her learning in favour of self guided virtual lessons. She wants to continue working on her own material while learning more about how the bass interacts with other instruments.

Goals

- Continue Learning
- Try new instruments
- Improve song writing

Pain Points

- Easily Bored
- Doesn't want it to feel like a chore
- Find theory boring



Carter

{ Piano Player }

Age: 22	Skill Level: Intermediate Songwriter
---------	--------------------------------------

About

Carter has been playing the piano for the last 8 years. He no longer takes lessons and is more interested in writing his own material. He plays in two bands and is starting a new solo project. He is looking for a tool that can store all of his songs in one place. He wants to be able to write new songs on the go and rapidly create musical ideas for his projects. He already has a tight grasp on theoretical concepts and needs something that will allow him to create and write more complex musical pieces.

Goals

- Write New songs
- Organize Musical Ideas
- Use on the go

Pain Points

- Doesn't need lessons
- Forgets musical ideas
- Easily Distracted

{ User Testing }

Brief Reflection

The Silent Observer

In many other use case scenarios I might have a user think out loud when user testing. I found that this project was a unique in that having users talk out loud was disruptive to the creative song writing process.

Musical creation can be a rather messy, the research from my previous iteration indicated that many new learners have a fear of judgement when creating music. It was my goal to make users feel comfortable in their creative process so I tried to reserve comments when users were getting into the zone. This was an effective strategy as I found that after some silence users would hyper focus on their project and I could visually see their thought process and decision making.

Learning Moment !

Be the guide they need*

With the prototype being so wrapped up in theoretical concepts it was important that I was able to guide users that had any difficulty or confusion. While I wanted to be quiet and out of the way I did not refrain from answering questions that users had.

This turned out to be a very effective method as I was able to identify problem areas where users were struggling. It also allowed me to take on an instructor type of role that prompted moments of discovery pertaining to what techniques and strategies were most effective when teaching certain theoretical concepts.

User testing results

User Group #1

Absolute Beginner

Duration { Avg } 01:06:00



User insights !

My first group of user testing went really well. These users were my primary audience so the results would be the most important when making appropriate design decisions later on. There was certainly a lot more questions during these tests and they definitely helped me to understand where the points of confusion and roadblocks occurred. I noticed that users would start to sing out the notes that they wanted to play and it made me realize how natural musicality can be if the setting and workspace is appropriate to the user. Below is an example of a song finished by participant #1.

- Goals Met
- Participant #1**
- ✓ User actualize a musical idea
 - ✓ User proud of what they made
 - ✓ Learned 1-3 new things
- Participant #2**
- ✓ User actualize a musical idea
 - ✗ User proud of what they made
 - ✓ Learned 1-3 new things

“ When choosing the key it would be nice to hear the notes, same with when you select the notes I wanna hear them before they get added to the timeline

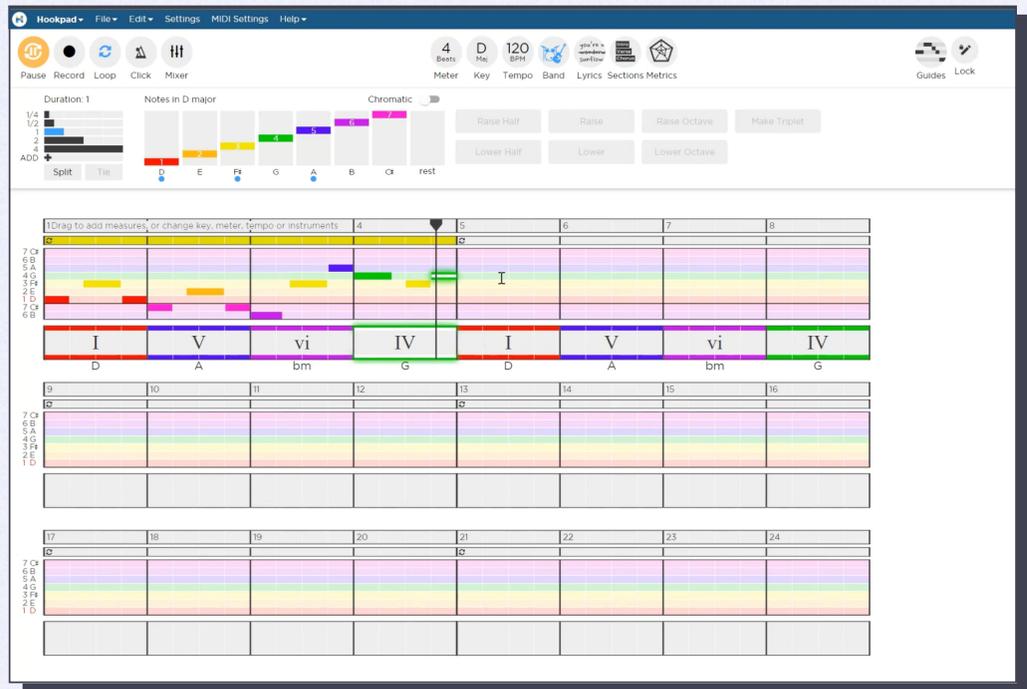
{ Participant #1 }

“ I hear the notes I wanna play in my head so sometimes I will try to sing them

{ Participant #2 }

“ I wish they weren't roman numerals because im a millennial and don't know how to read them

{ Participant #2 }



Things that Worked Things that Did Not

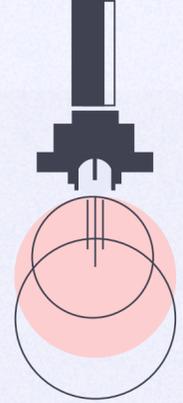
- + Note Selection Process
 - + Pre-Made Progressions
 - + Playback Feature
-
- Roman Numerals
 - Typing to add notes
 - Getting Started

User testing results

User Group #2

Adventurous Learner

Duration { Avg } 00:56:32



User insights !

My second user group had an easier time piecing together their arrangement than the first user group. There was still lots of questions during this test but generally this group had a tighter grasp on many of the concepts being used.

It was interesting to hear if these user would continue to use this software in the future. The general consensus was no as both users preferred other methods but they both did mention that if the interface was improved and workshopped for mobile platforms they could imagine themselves using it on the go.

- Goals Met
- Participant #1**
- ✓ User actualize a musical idea
 - ✓ User proud of what they made
 - ✓ Learned 1-3 new things
- Participant #2**
- ✓ User actualize a musical idea
 - ✗ User proud of what they made
 - ✓ Learned 1-3 new things

“

User started beat boxing drum Ideas

This made me realize there is no easy feature to add precautionary elements to the song

{ Participant #3 }

“

Throughout this process, I liked that I was able to ask you questions. I think it would be cool if there was a feature that suggested notes and musical ideas in an easier way.

{ Participant #3 }



Things that Worked

Things that Did Not

- + Metrics Feature
 - + Band feature / interest
 - + Playback Feature
-
- [-] Finding good progressions
 - [-] Note arrangements
 - [-] Magic Feature / Confusion

“

Maybe it starts you off with a template, and you select a mood, and based off of that then you get suggested notes / chord progressions

{ Participant #4 }

User testing results

User Group #3

Intermediate

Duration { Avg } 00:41:02



User insights

The last user group was less surprising. Mostly all of the concepts being used were well understood and used properly throughout the arrangement. What made this user group so interesting in comparison to the other 2 was that they had the best critique for UX and UI.

Because the concepts were already well understood the focus was on how things could function more efficiently. I got some great insights from this user group that would come in handy later on.

- Goals Met*
- Participant #1**
- ✓ User actualize a musical idea
 - ✓ User proud of what they made
 - ✓ Learned 1-3 new things
- Participant #2**
- ✓ User actualize a musical idea
 - ✗ User proud of what they made
 - ✓ Learned 1-3 new things

“ Now this is great, but if I want to actually play this on guitar I would like to see the chords, is there an option for that ?

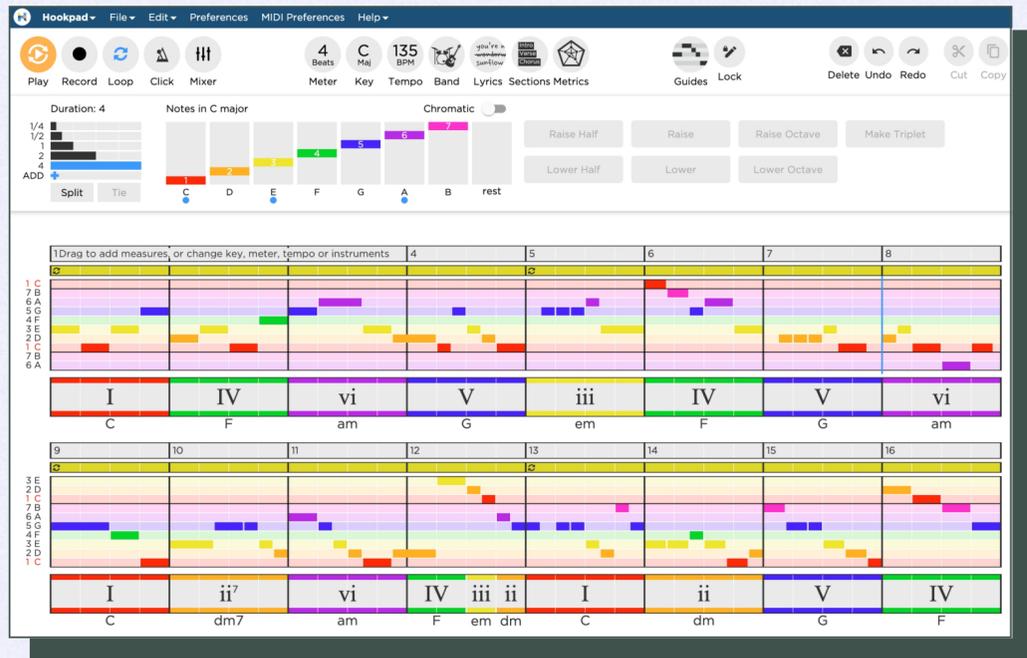
{ Participant #5 }

“ When using this software, There’s no making mistakes. Which is great for beginners. No matter what you play the notes are gonna be in key, and the metronome will keep everything in time. Compared to using a DAW or sitting at a piano, it’s very easy to start and interact with but the chances are if you don’t know what you’re doing it’s going to messy.

{ Participant #6 }

“ I keep accidentally hitting things but I find its a good thing because its giving me new ideas as to which direction the song could go

{ Participant #6 }



Things that Worked Things that Did Not

- + Converting Ideas
 - + Inspired Quickly
 - + Playback Feature
-
- ☐ Copy Paste
 - ☐ Rhythm Octave
 - ☐ Couldn't find chord chart

Pivotal Moment !

{ User Test }

Key Takeaways

After testing this product and looking back to my initial prototype it became clear that this type of tool is not the right fit for my target audience.

There are too many variables and points of distraction / confusion. With this information, I chose to not pursue a tool like this any further and headed back to the drawing board to organize insights gathered from research and user testing.

1. The computer / Device is a distraction from learning
2. The software is boring and confusing for new users.
3. Interviews reveal motivational issues
4. Users demonstrate natural musicality



{ Chapter Six }

Iterate

{ Iterate }

Organizing Insight

Combining the learnings gathered from my research and user testing I organized user insights into groupings of similar nature. These groupings helped me to understand user needs, pain points and user values which I would could later use to justify and create core features for my design solution.

Quote Index - Moments of insight

■ Literature Review Quotes ■ User Testing Quotes ■ Online Form Quotes ■ Interview Quotes

Take songs that mean something to me and try to break them down. The point is to see what these concepts look like in action and more importantly to see which other concepts I wasn't being taught.

Fender Play - which offered a number of free trials over the lockdown period - saw its user base increase from 150,000 to 930,000 with close to 20 percent of the new users under 24, and 70 percent under 45.

The reasons most commonly cited for not wanting instrumental tuition (of those supplied) were 'I think it would be boring' and 'I'm just not interested in music

39% of respondents answered that music lessons would be too expensive

When choosing the key it would be nice to hear the notes, same with when you select the notes I wanna hear them before they get added to the timeline

I hear the notes I wanna play in my head so sometimes I will try to sing them

I wish they weren't roman numerals because im a millennial and don't know how to read them

User started beat boxing drum Ideas
This made me realize there is no easy feature to add precautionary elements to the song

No matter what you play the notes are gonna be in key, and the metronome will keep everything in time. Compared to using a DAW or sitting at a piano

Maybe it starts you off with a template, and you select a mood, and based off of that then you get suggested notes / chord progressions

Throughout this process, I liked that I was able to ask you questions. I think it would be cool if there was a feature that suggested notes and musical ideas in an easier way.

What are these numbers, the roman numerals ? I don't know what that means

I love how changing the genre and adding the band really ties it all together, it almost feels like I didn't make this but I did.

Now this is great, but if I want to actually play this on guitar I would like to see the chords, is there an option for that ?

I keep accidentally hitting things but I find its a good thing because its giving me new ideas as to which direction the song could go

It would be cool if you could show keys by mood

I've been learning other peoples stuff for so long I don't know if I have any creativity left. Maybe its just impossible for me.

Whenever I get inspired, or motivated to improve my skills, I always get stuck, feel overwhelmed with how much there is that I need to learn about, practice, and master

there is so much more to playing guitar than just hitting a note. Vibratos, slurs, etc., so the feeling of grooving is not something Yousician can teach.

I have been over complicating things for like 30 years because I never learned theory. I intuitively know lots of stuff, can jam with anyone... but I don't understand what I am doing.

I've studied piano and music theory for many years, but I have never been able to write something of my own. Everytime I try, my insides feel like they're being synched up with barbed wire

Every guitar player who has learned how to play from YouTube videos all have one thing in common: lack of musicality. They "play" the tab or what they think is the lick, with no understanding of what they're doing.

I periodically go through quitting music, If I don't have anywhere to play, or anyone to play with I stop for a bit. I need other people around me engaging in it

Paying for other apps was too expensive, I got frustrated with it and gave up

I mostly just wanna share with my friends and hear their feedback. Im not expecting to blow up.

Getting started I found so many great apps that can hold your hand through the whole process at the beginning

I remember my biggest issue was I that I wasn't playing the type of music I was listening to. It was very formal and traditional. To add to that, my teacher wasn't making it very fun, it was treated more like a discipline"

I love to create. But I know without theory that my tool belt is limited with how I can express myself.

I get really scared presenting because its so personal. Especially when there's singing, its so raw.

My guitar is collecting dust, but I see my ideal self riffing on it.

My parents put me into music when I was 3. So it was never like I took the initiative myself.. I feel like I just coasted threw all those lessons.

I look up to a lot of musicians that surround me. Having the context of other people had a big impact on my learning for sure.

I took group lessons, It felt terrible. Like I was constantly comparing myself to another.

I feel that everything has already been made. Im not original or smart enough. So why bother.

If there were clever ways to learn music theory, I would definitely do it, but the thing is that when I hear music theory, I start thinking about school.

With learning the guitar, it feels like im doing a worse job playing something that's already been made.

There's lots of good resources online. Whenever I want to learn to do something I just look it up and can find exactly what I was looking for.

My parents never forced instruments on me..It wasn't until I was maybe 13. I would take an interest in garage band and that took up all my free time.

Music theory has kept me from creating because its intimidating and I don't understand all of it. But I know you need it.

I get really scared presenting because its so personal. Especially when there's singing, its so raw.

With learning the guitar, it feels like im doing a worse job playing something that's already been made.

If I could see how music theory is applied to real popular songs, I think that would be really helpful.

Affinity Mapping - User Values

■ Literature Review Quotes ■ User Testing Quotes ■ Online Form Quotes ■ Interview Quotes

1 Teachings relevant to user interest

Take songs that mean something to me and try to break them down. The point is to see what these concepts look like in action and more importantly to see which other concepts I wasn't being taught.

Maybe it starts you off with a template, and you select a mood, and based off of that then you get suggested notes / chord progressions

If I could see how music theory is applied to real popular songs, I think that would be really helpful.

It would be cool if you could show keys by mood

I couldn't play the music I was listening to. I was all very formal. it was treated more like a discipline...I felt like I couldn't progress because there was nothing I wanted out of it.

2 Confusing theory = less creation

Music theory has kept me from creating because its intimidating and I don't understand all of it. But I know you need it.

Whenever I get inspired, or motivated to improve my skills, I always get stuck, feel overwhelmed with how much there is that I need to learn about, practice, and master

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3 Audio Feedback

When choosing the key it would be nice to hear the notes, same with when you select the notes I wanna hear them before they get added to the timeline

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User started beat boxing drum Ideas
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4 Collaboration is key

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5 Free to use product

39% of respondents answered that music lessons would be to expensive

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Fender Play - which offered a number of free trials over the lockdown period - saw its user base increase from 150,000 to 930,000 with close to 20 percent of the new users under 24, and 70 percent under 45.

6 Natural Musicality

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Affinity Mapping - User Values

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7 Put creation first

With learning the guitar, it feels like im doing a worse job playing something that's already been made.

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Music theory has kept me from creating because its intimidating and I don't understand all of it. But I know you need it.

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Maybe it starts you off with a template, and you select a mood, and based off of that then you get suggested notes / chord progressions

8 Mood Discovery

Maybe it starts you off with a template, and you select a mood, and based off of that then you get suggested notes / chord progressions

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9 Guided Experience

Throughout this process, I liked that I was able to ask you questions. I think it would be cool if there was a feature that suggested notes and musical ideas in an easier way.

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10 Chord Translation

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11 How theory is applied

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12 Roman numerals = Confusion

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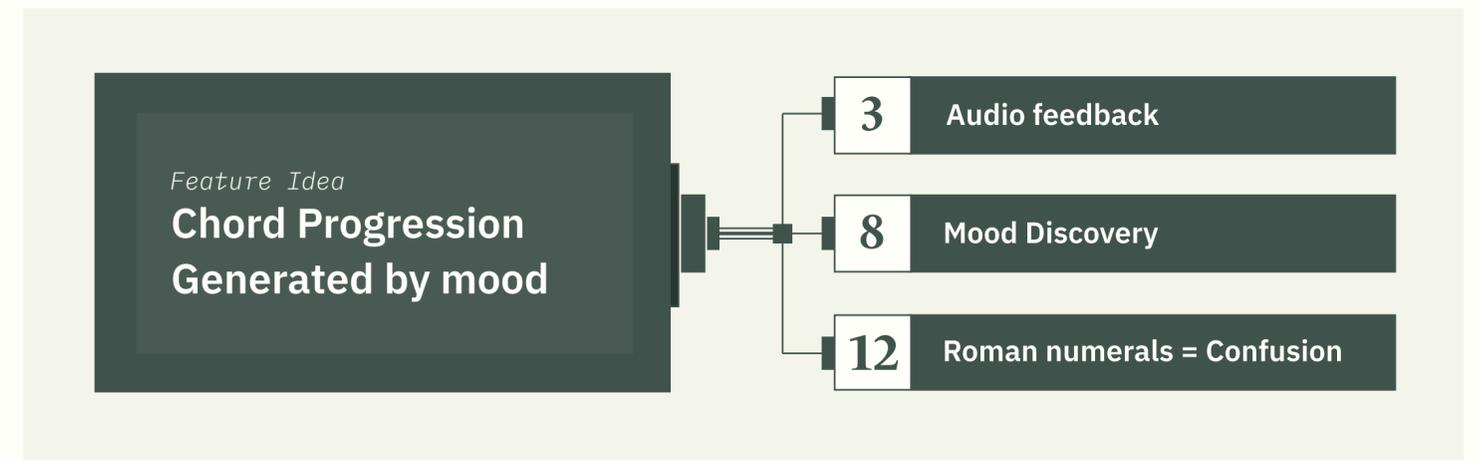
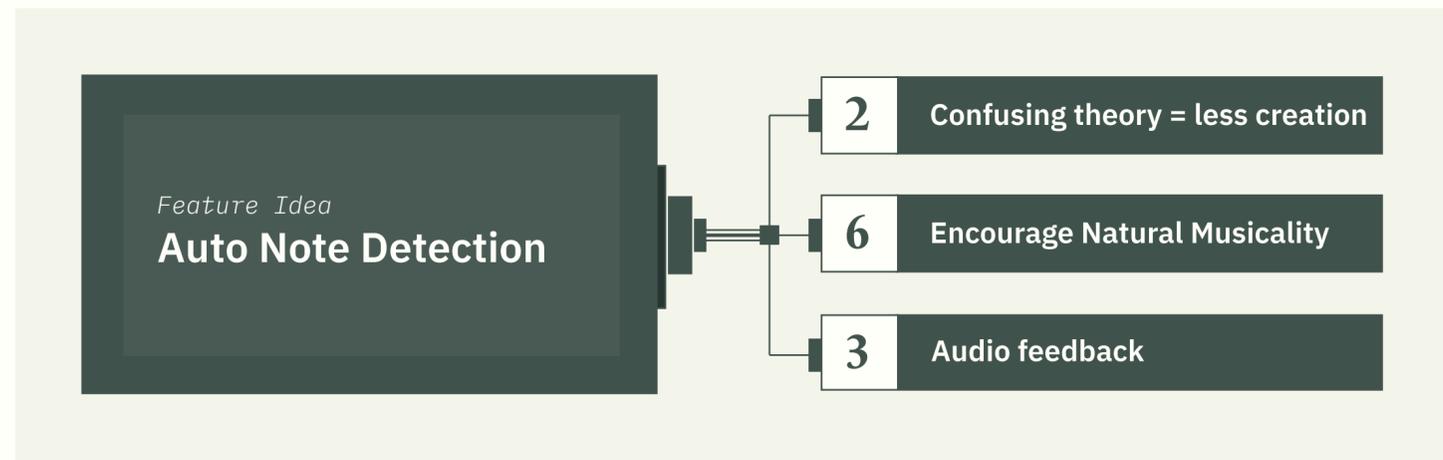
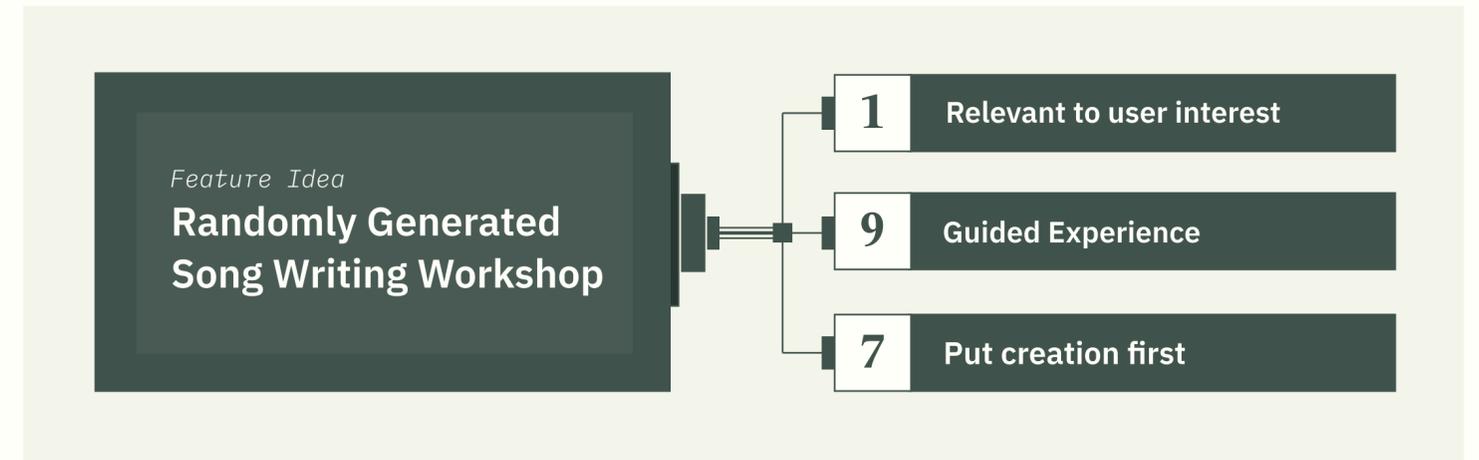
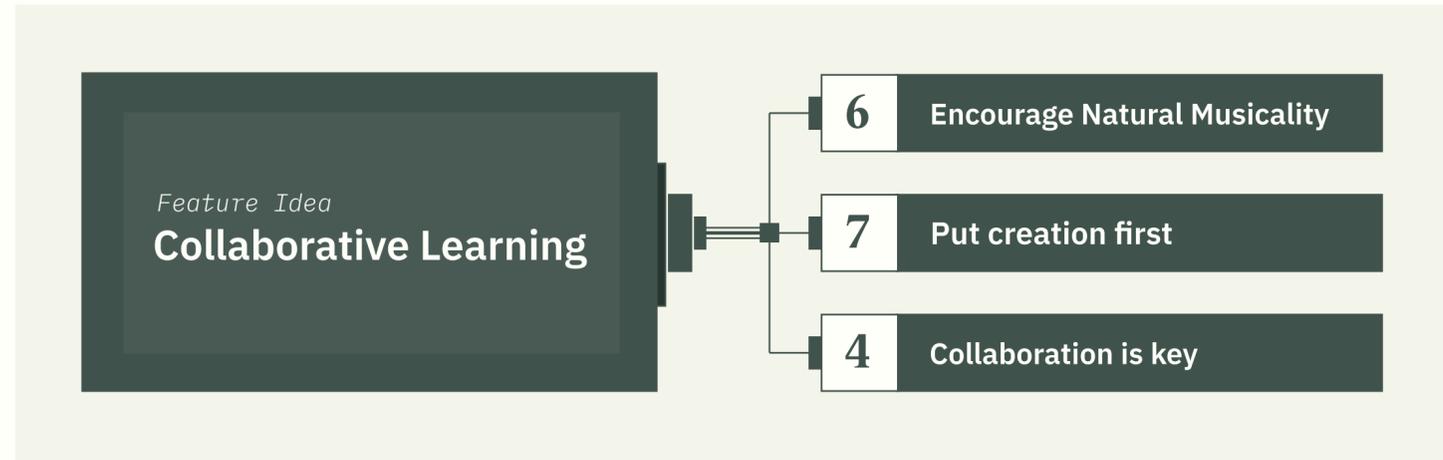
- 1 Teachings relevant to user interest
- 2 Confusing theory = less creation
- 3 Audio feedback
- 4 Collaboration is key
- 5 Free to use product
- 6 Encourage Natural Musicality
- 7 Put creation first
- 8 Mood Discovery
- 9 Guided Experience
- 10 Chord Translation
- 11 How theory is applied
- 12 Roman numerals = Confusion



{ Develop }

Primary Features

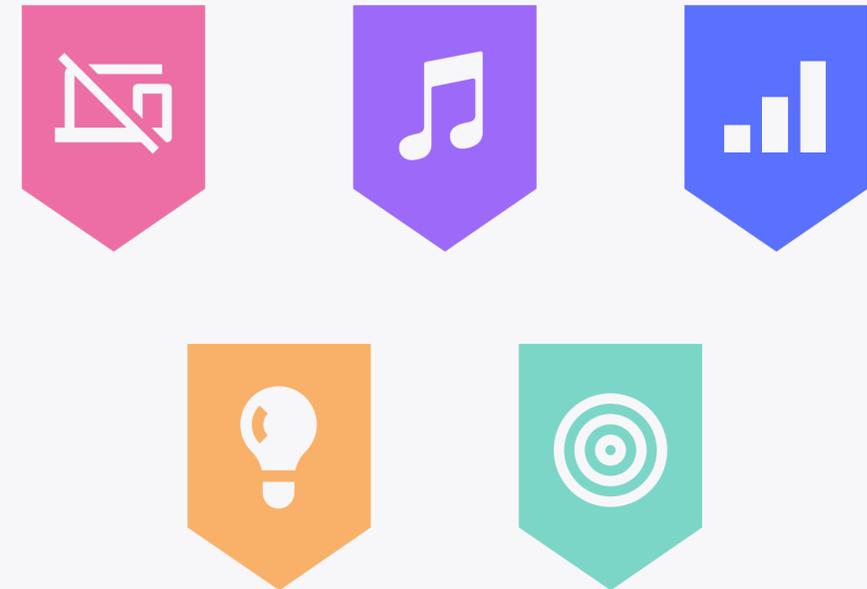
Generated by user value insights



{ Iterate }

Insight Paramaters

Using my list of user values and key features, I then created a list of parameters entitled “Product Goals”. This list of product goals became my bible when designing. Throughout the next design process I would constantly refer back to this list to ensure that the design decisions I was making were backed by research and user input.



{ Iterate }

Product Goals



Focus

Must be accessible away
from phone or computer



Cater

Cater to the users
musical interest, genre,
style, etc.



Measure

Generate measurable
goals and track progress



Motivate

Incentivize regular practice
to encourage development
and habit forming



Facilitate

Facilitate practice
sessions based on user
goals and interest



{ Chapter Seven }

Design



{ Design }

Prototype

Before moving forward anymore I needed to address my first product goal “Must be accessible away from phone or computer”. This was one of the most challenging parameters that I placed on the project as it was an early assumption of mine that the end product would solely be used on the computer. I started a brainstorming session that helped me to determine how proceed.

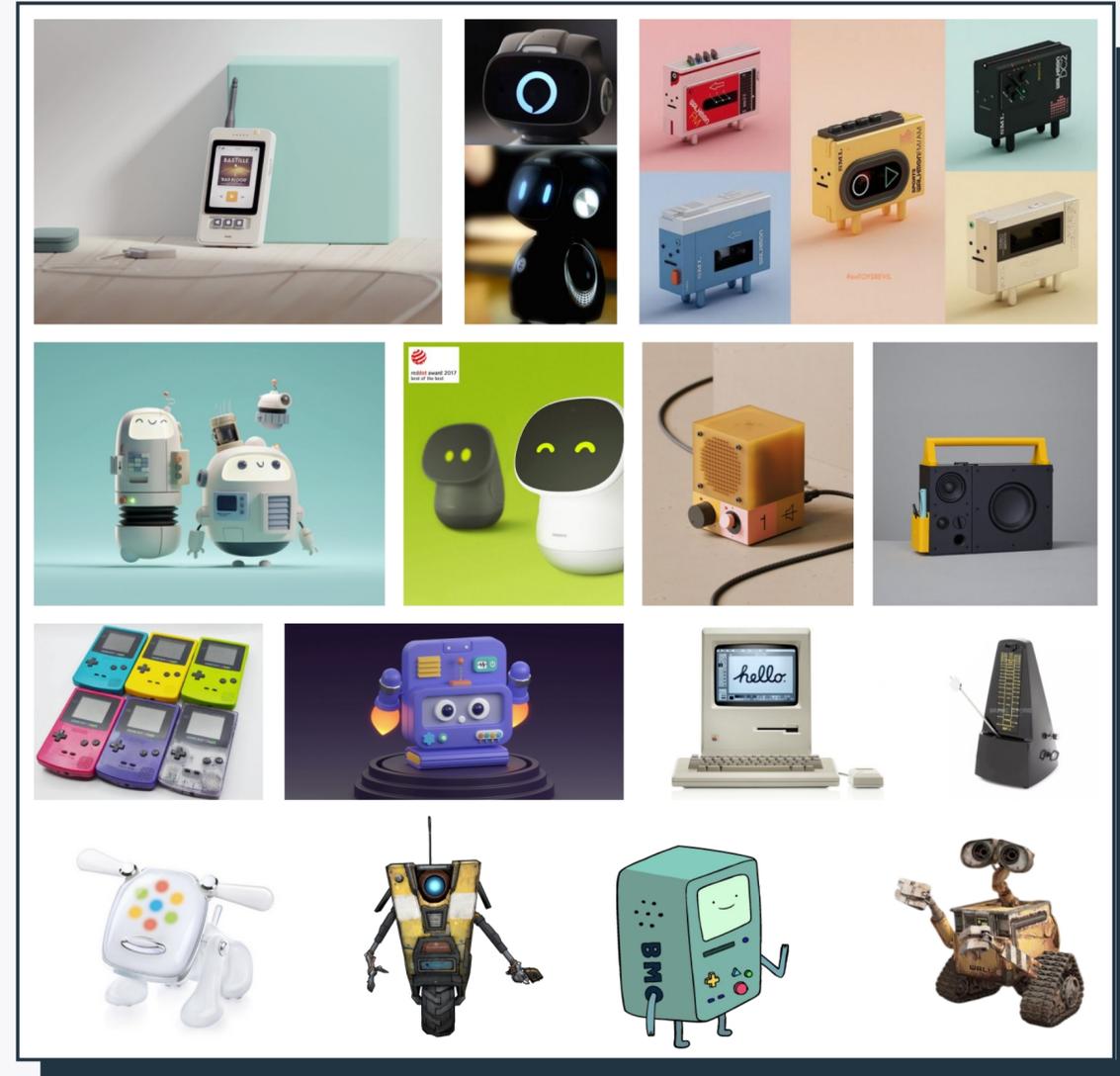


{ Design }

Prototype

After my brainstorming session, I eventually landed on the idea that the product could be a separate device from the phone and function as a screen, speaker, and microphone to facilitate and monitor practice sessions. Hesitant to create a device that just looked like a tablet or phone, I wanted to make a character that could appeal to a younger audience.

I created a mood board of characters / artwork / and older technology that inspired me. I wanted to create a friendly face, that had tactile components making it feel like a relic of the past. Once I had put this mood board together, I was really starting to get an idea of what I wanted it to look like, and started drawing out some ideas.



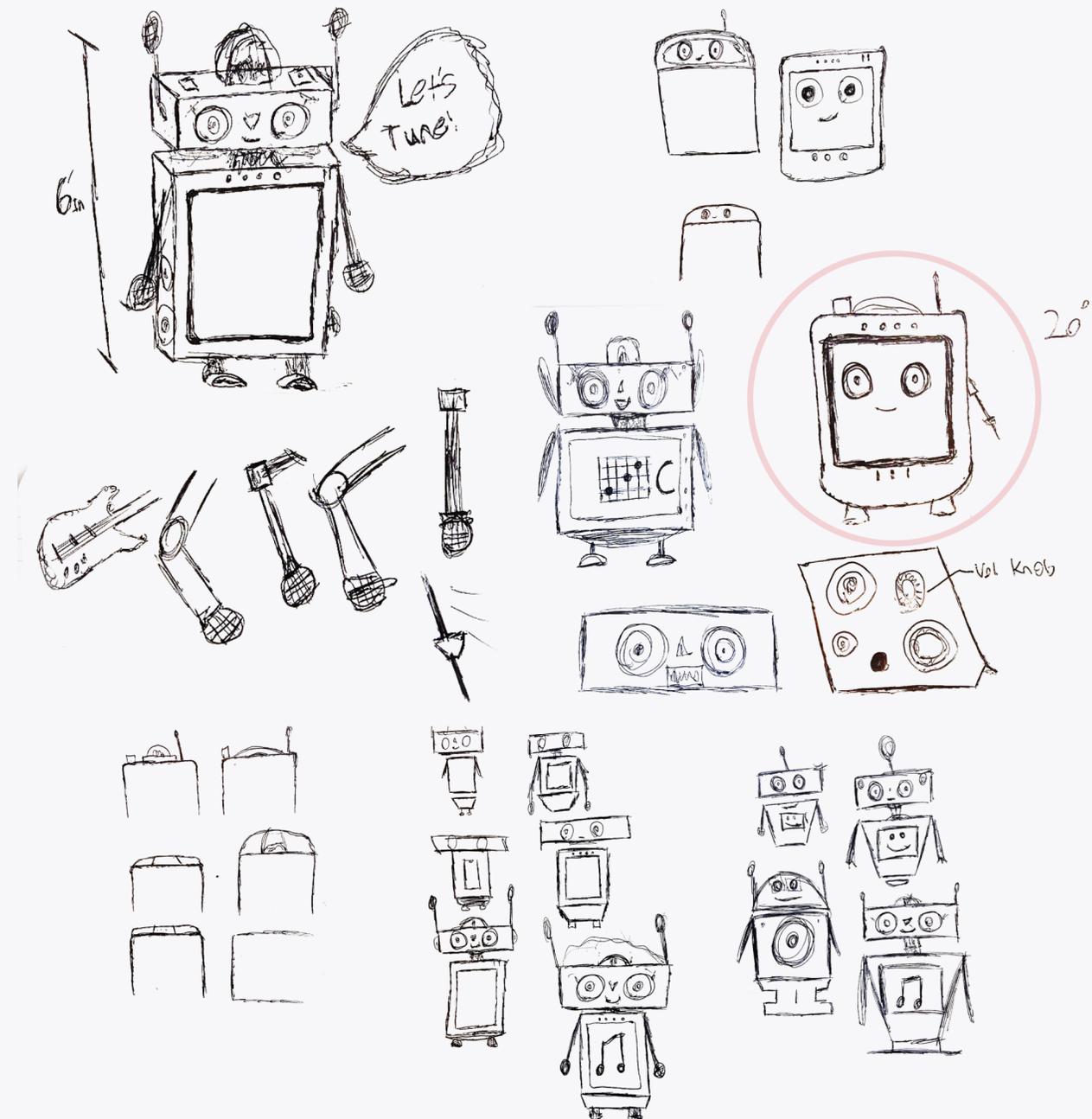


{ Design }

Prototype

I wanted to get some rough ideas down before I moved into 3D modelling. I did some brief user testing among my peers to get an idea of what they thought about the sketches. The main feedback that I got was that I should focus on making it seem less like a toy, and more like a learning device. It was also emphasized that the face needs to look more friendly as it could look creepy sitting on a shelf or table.

I decided to reduce the number of tactile components, and really focused on making something that looked more like a learning device. I wanted the product to look as though it could easily sit on a shelf, table or desk without looking like a toy. I was inspired by the design of Google home and Amazon Alexa for this phase of the design as they both are products that I feel are able to achieve this sort of look.



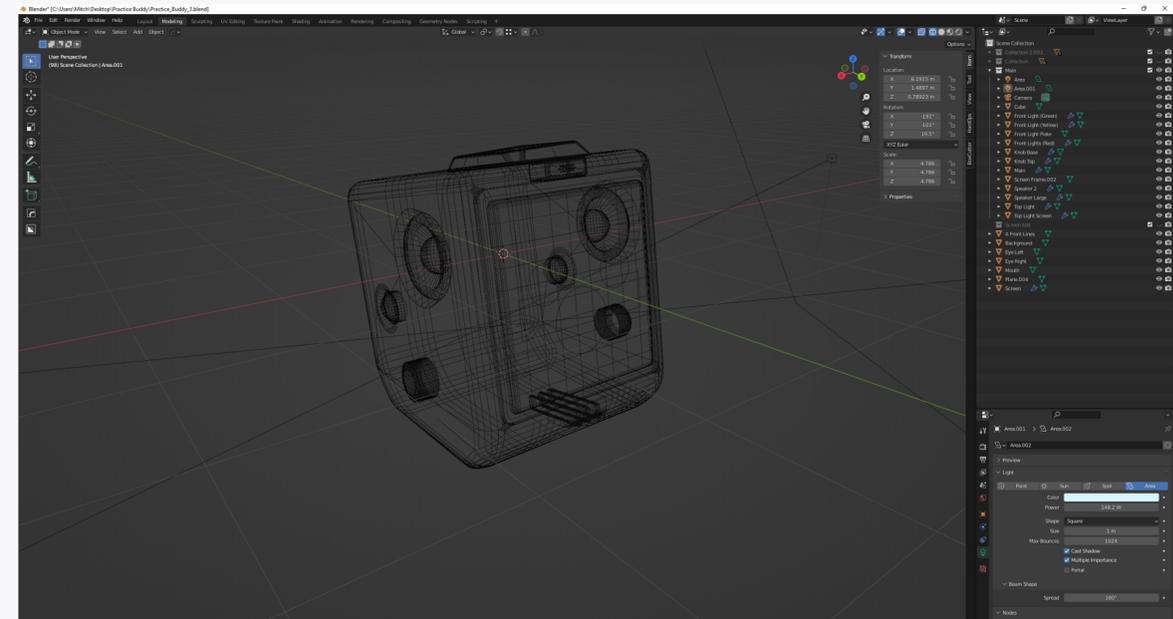


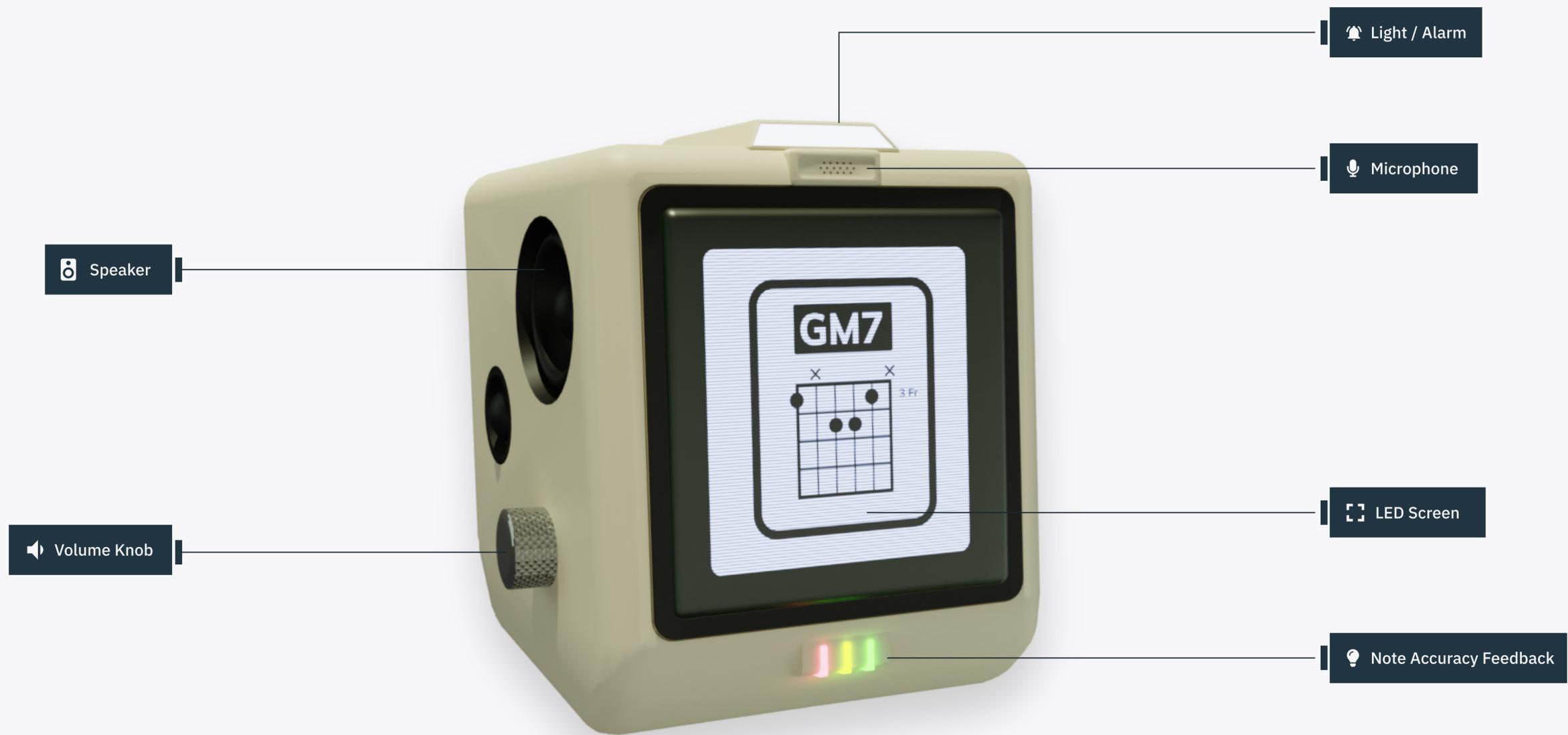
{ Design }

Prototype

With the feedback I gathered, and my rough sketches I decided to move into 3D modeling. I spent a long time working out different iterations of the design before landing on what you see here. Some of the main components that I added to this design include.

1. Large speakers for audio feedback and collaboration
2. A microphone for picking up instrumental sounds and voice command
3. A light at the top that can communicate through the use of color
4. Lights at the bottom for tuning feedback
5. A tilted design that points the screen upward towards the user
6. Tactile volume knob
7. LED screen

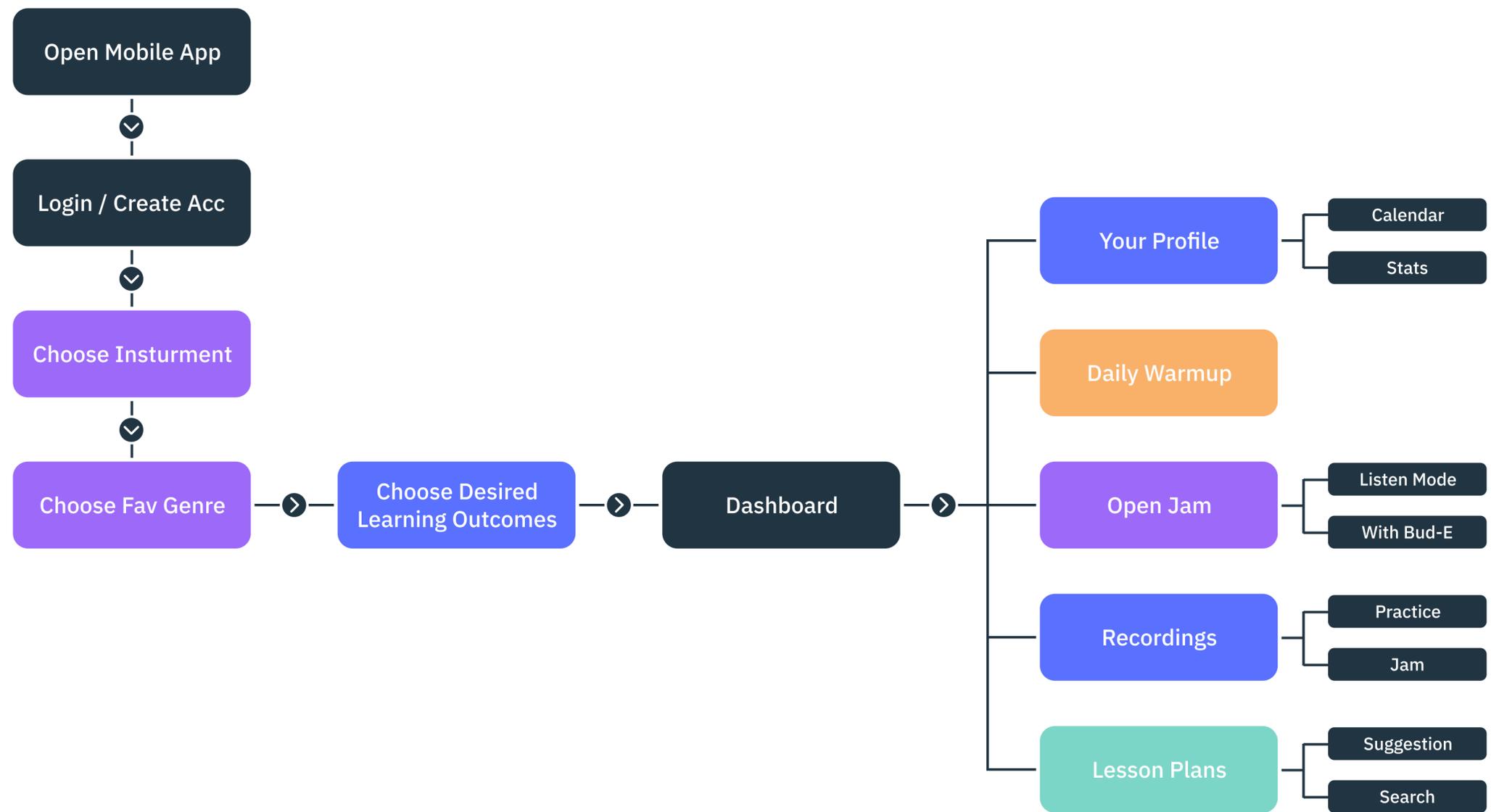




{ Design }

Mobile Component

Rather than designing a whole a new interface and control system for the product, I decided that I would make a companion app that would function as a controller and diary for users to monitor their progress. I opted for this because I didn't want to overwhelm users with having to learn a whole new control system in order to use Practice Bud-E. By creating a mobile companion app, control and use would be more familiar to users.



Mobile App - Flow Chart



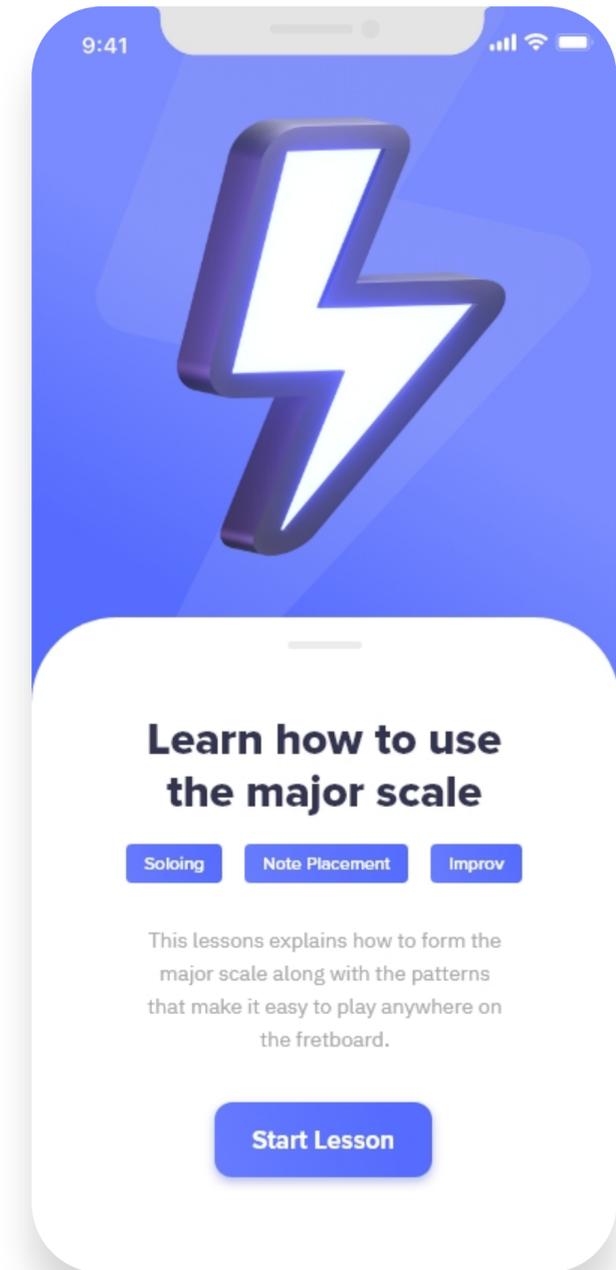
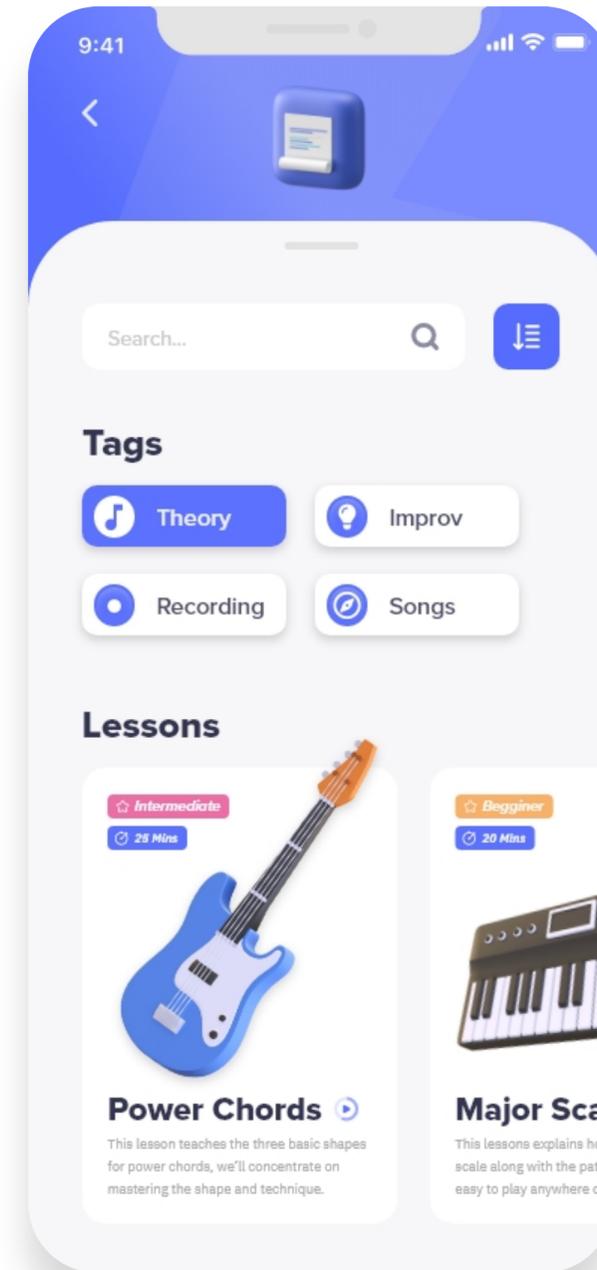
Lesson Search

Users can search for lessons based on phrases, songs, genre, recording, music theory, etc.



Lesson Suggestion

Lessons catered to user interest and development are suggested to users in the search section



Focus



Cater



Measure



Motivate



Facilitate



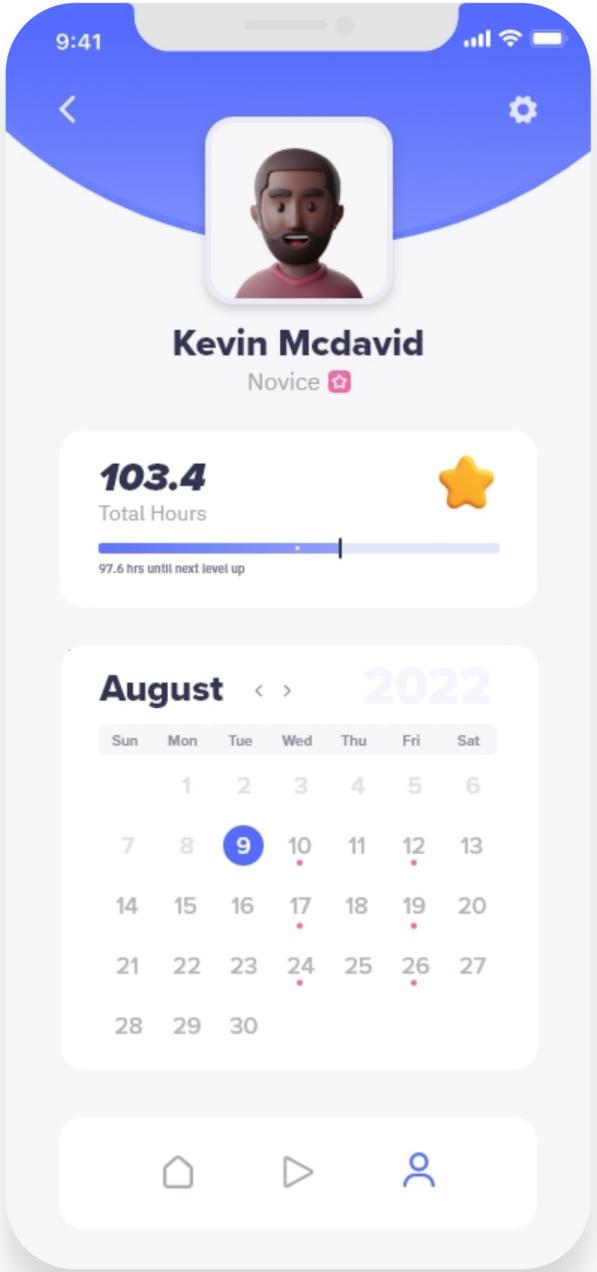
Dashboard

Gamify practice. Users can level up, earn achievements and track the total amount of hours practiced.



Highlights

Users can schedule practice days, set reminders, and create measurable goals



Focus



Cater



Measure



Motivate

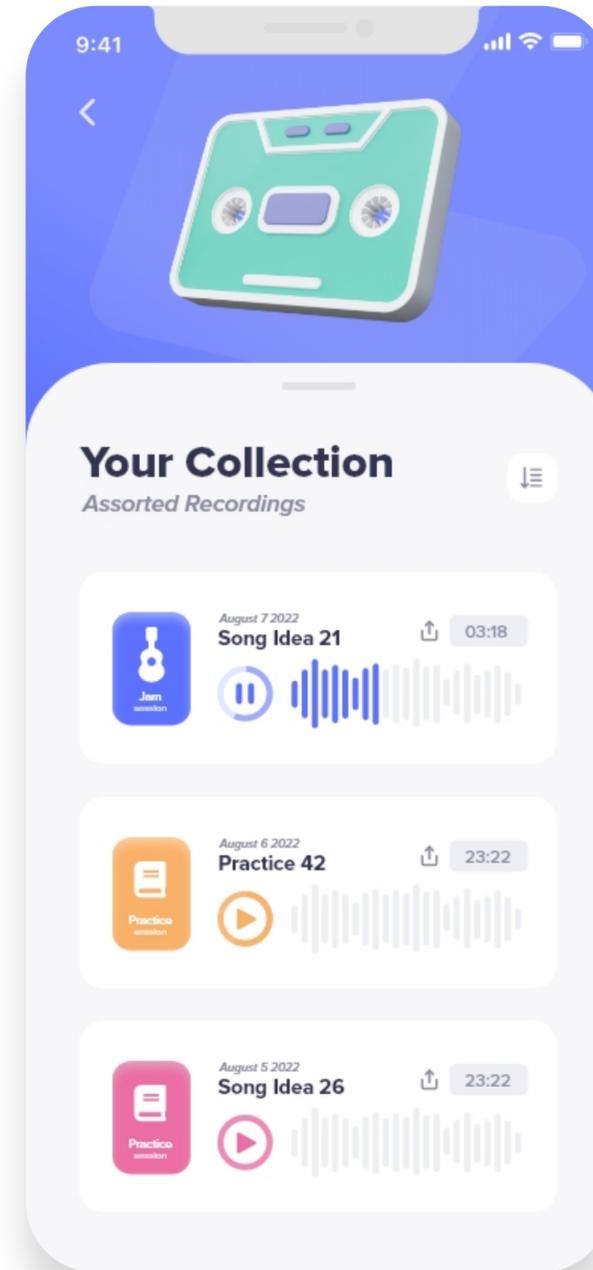


Facilitate



Recording

Practice Bud-E Can record practice sessions, song ideas, jam sessions for users to reflect on later



Focus



Cater



Measure



Motivate



Facilitate



{ Chapter Eight }

Deliver

Main Colors



Gray Scale



Heading H1

IBM Plex Sans - Bold 64px

Heading H2

Proxima Nova - Extra Bold - Bold 30px

Heading H3

Proxima Nova - Extra Bold 25px

Heading H4

Proxima Nova - Extra Bold 22px

Sub-Heading

Proxima Nova - Semi-Bold-Italic 16px

Paragraph P1

IBM Plex Sans - Regular 14px

Lorem Ipsum

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Paragraph P2

IBM Plex Sans - Regular 12px

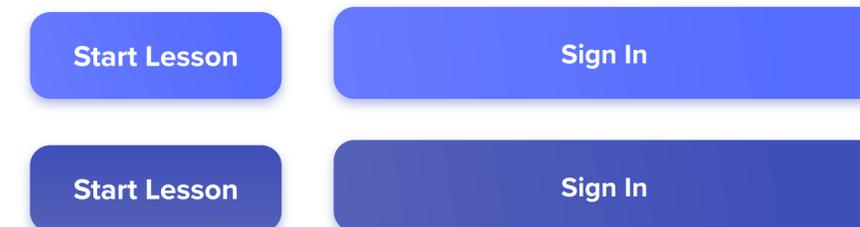
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Main Title Example

Sub title example

Components





{practice}

Bud-E



{practice}

Bud-E



{practice}

Bud-E



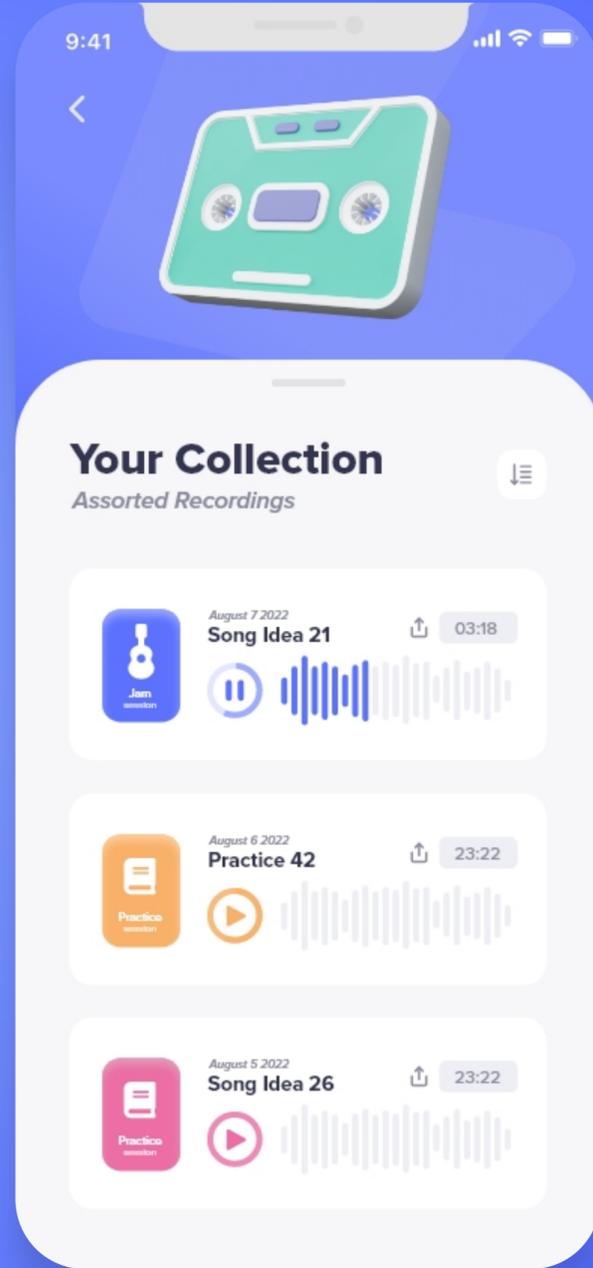
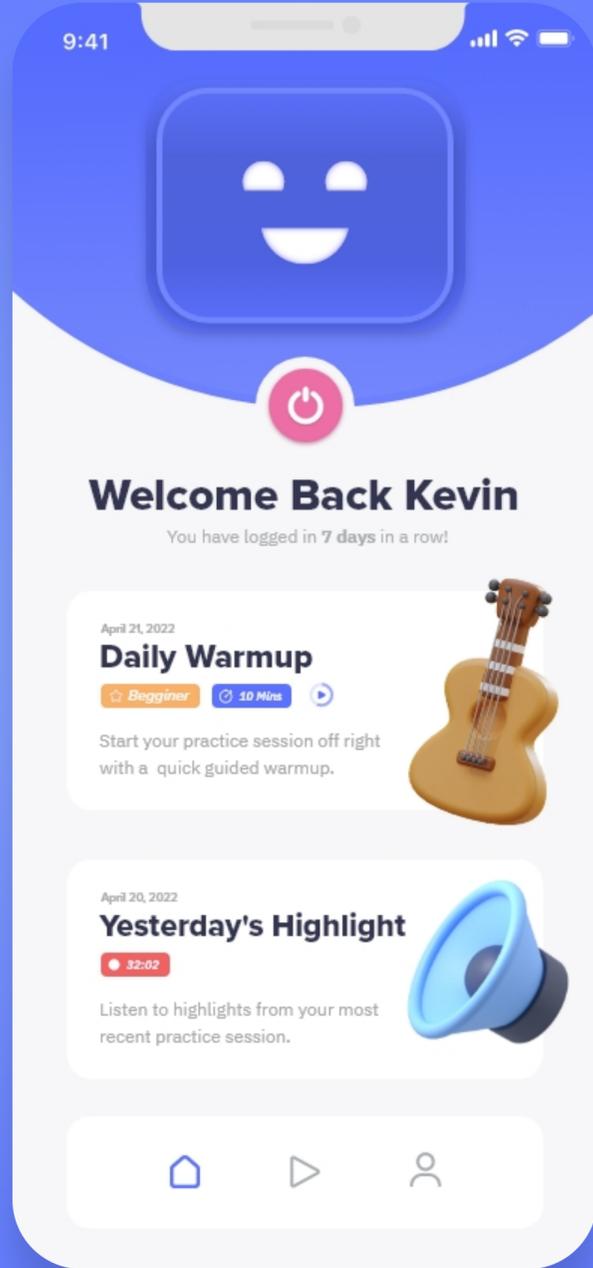
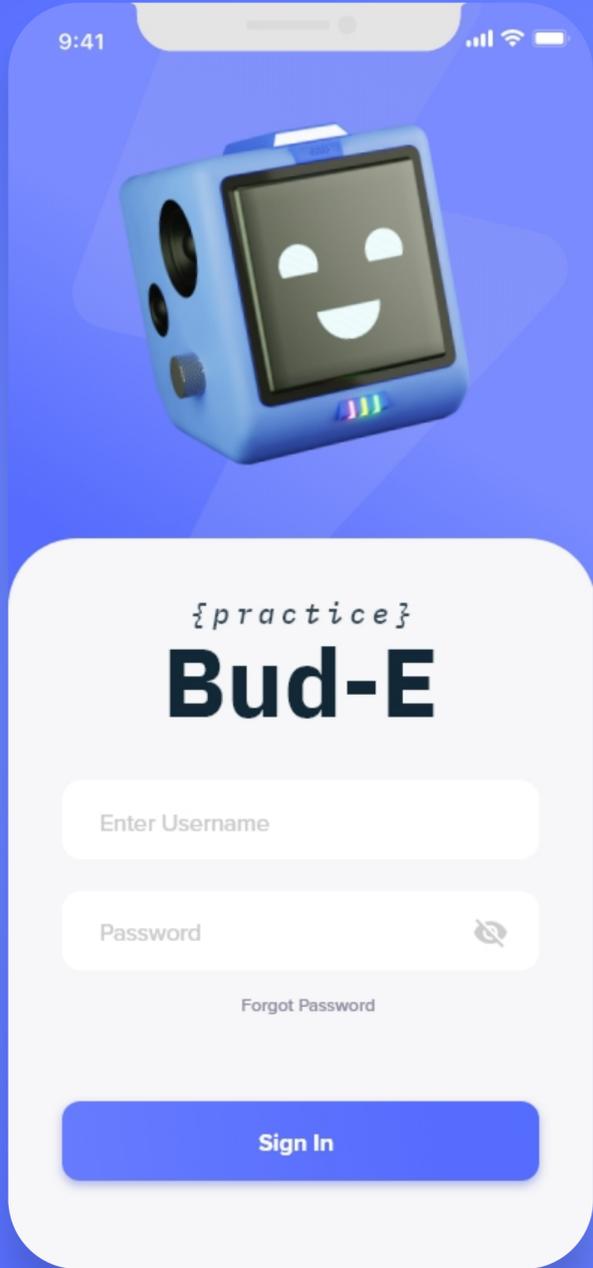
{practice}

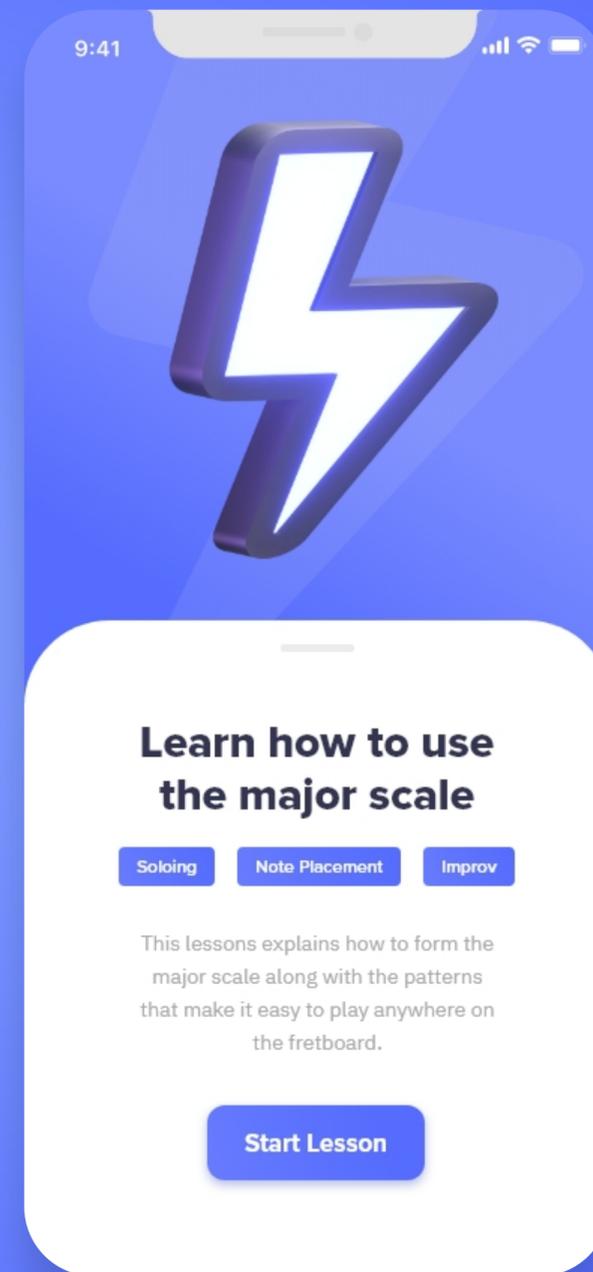
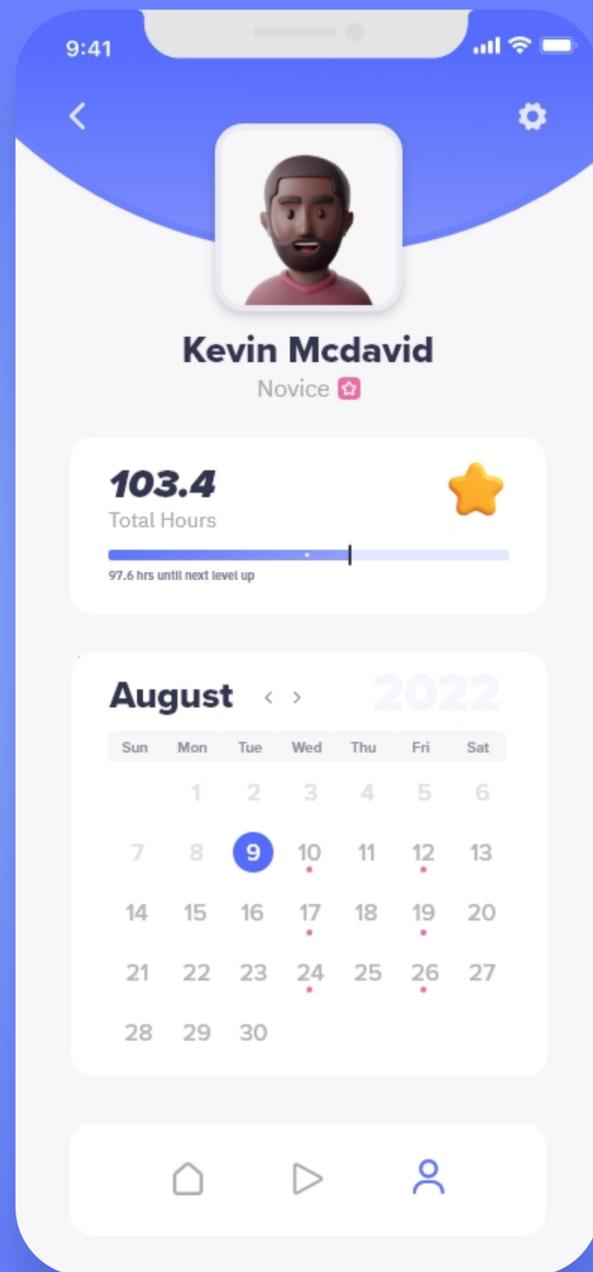
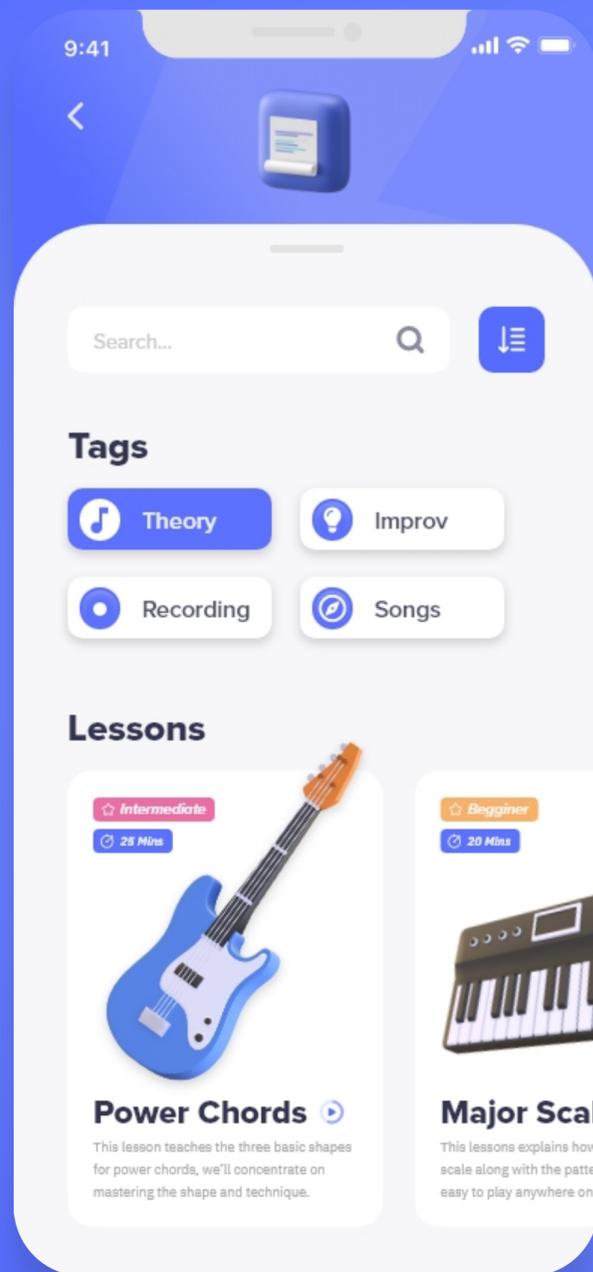
Bud-E



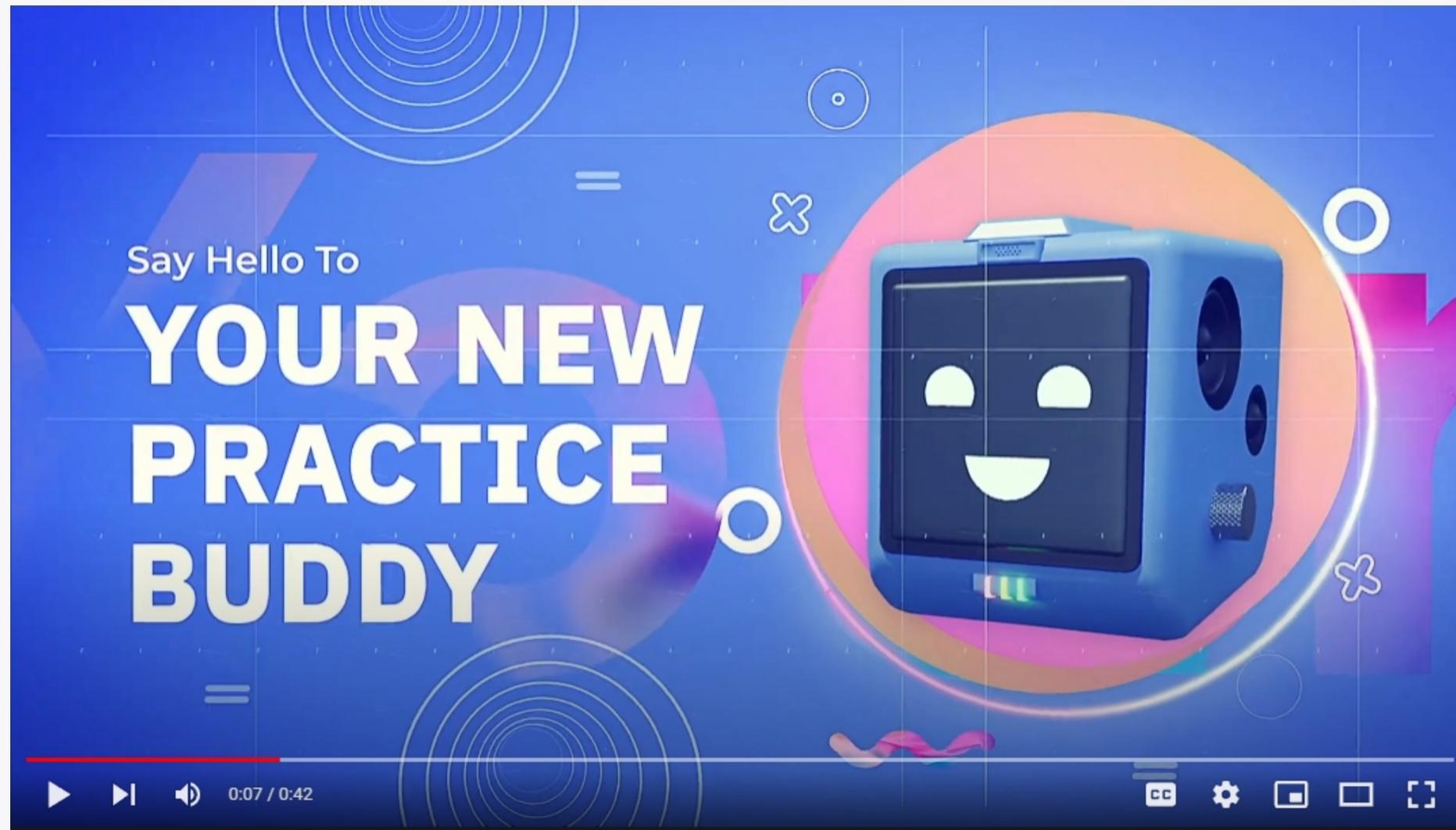


GM7





Promotional Video



 Watch

https://www.youtube.com/watch?v=jqQEsUH301s&ab_channel=MitchMcKain



{ Chapter Nine }

Reflection

My four main

Moments of growth

1

Learning how to 3D model / being able to create my vision while also creating something within my skill set

2

User testing competitors products can provide great insight to problem space and user needs.

3

Putting user needs first, being able to narrow down feature ideas to what users require most.

4

Its okay to sometimes think and design outside the realm of mobile applications.

My four main

Next Steps

1

Enhance upon 3D model of bud-E. I want to add new features / more details to its physical appearance.

2

I want to animate bud-E to visually demonstrate how the product would work in an ideal scenario. More Screens.

3

More user testing with the application and how it works in conjunction with the actual product.

4

Design more screens for the application based on user testing results

End.

Mitch-Design.com



Mitch McKain