

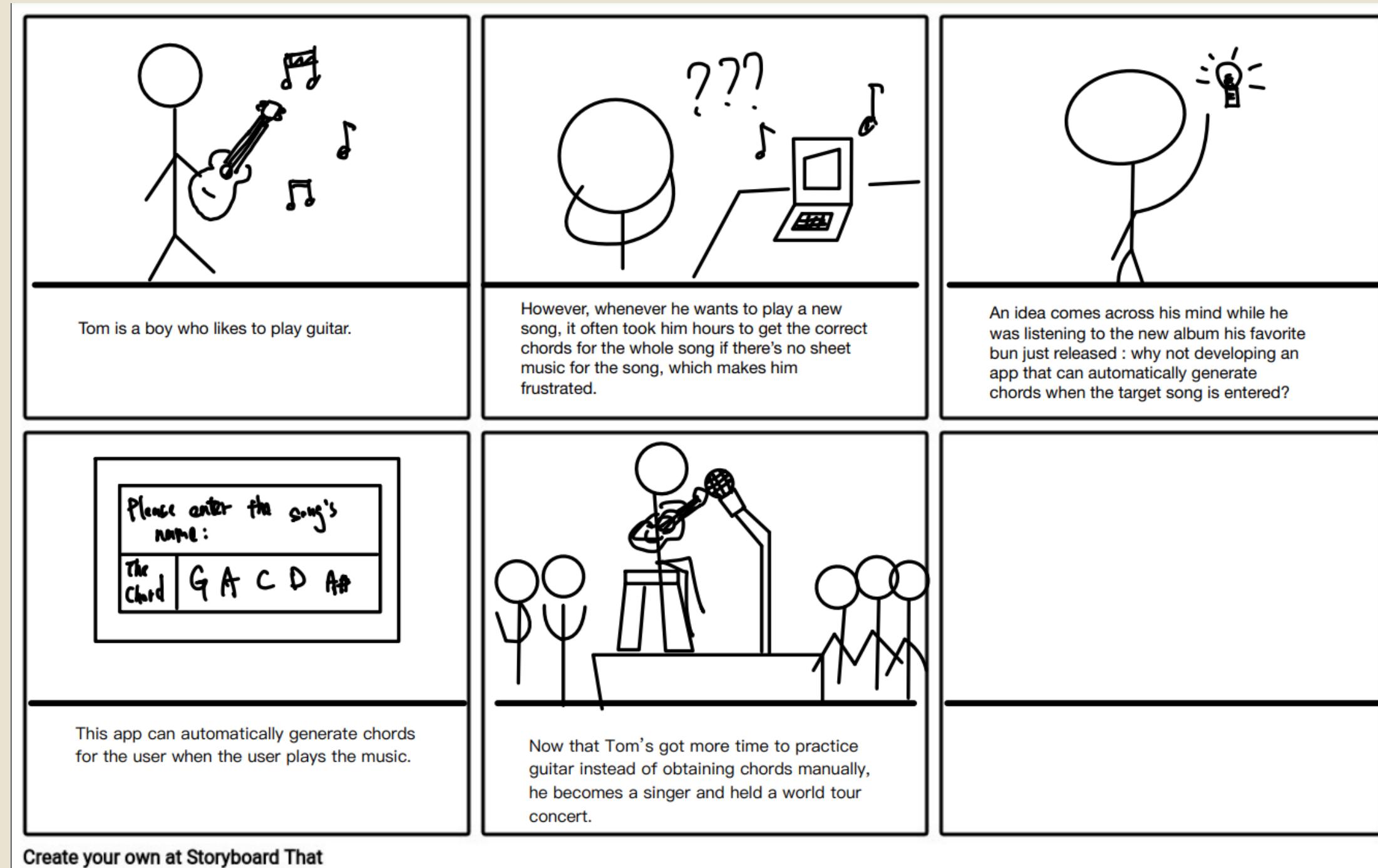
# Team 27

**members:** 李晉方、游竣閔、郭仁瀚



ChordMasterAI

# main story board





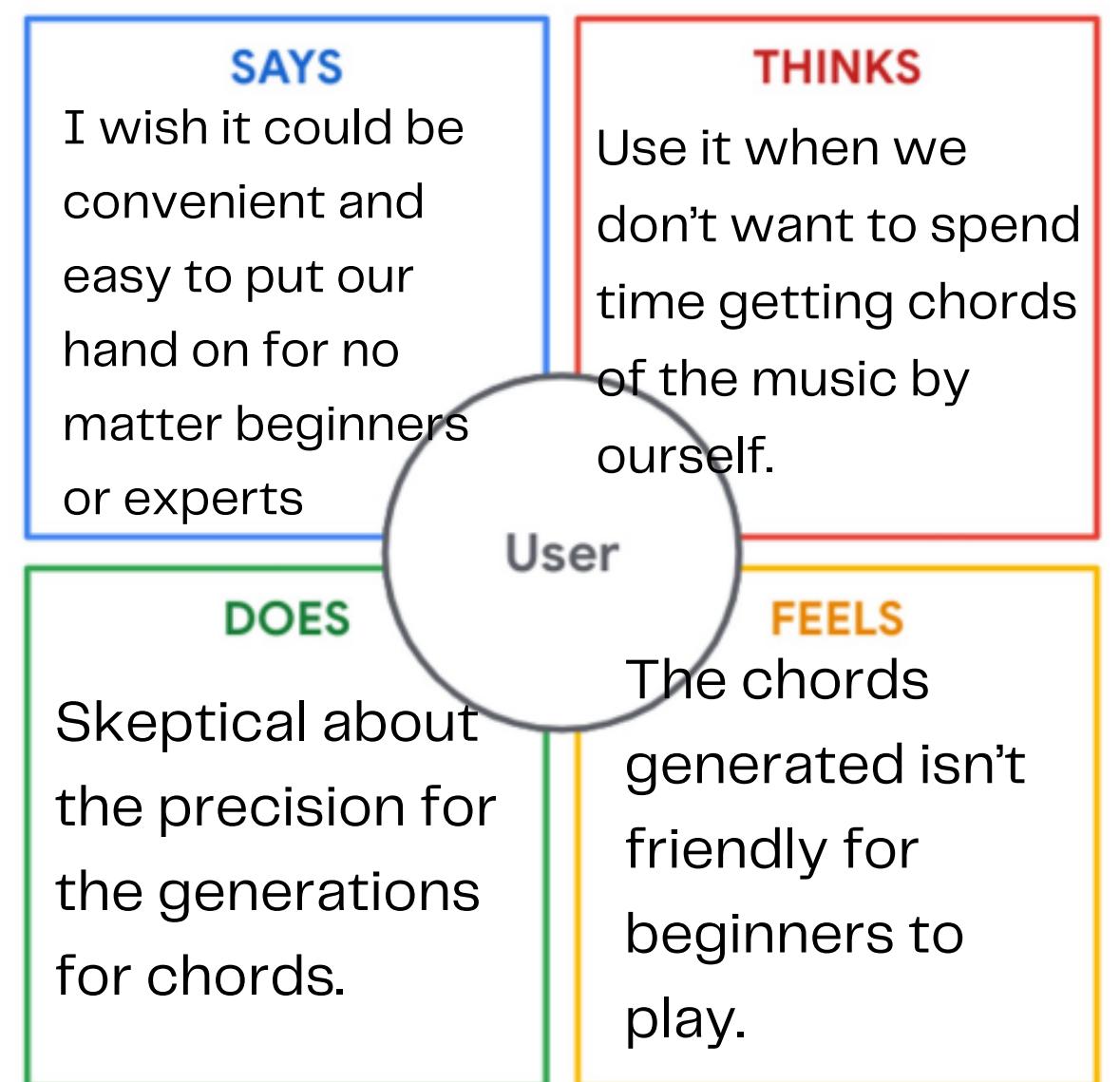
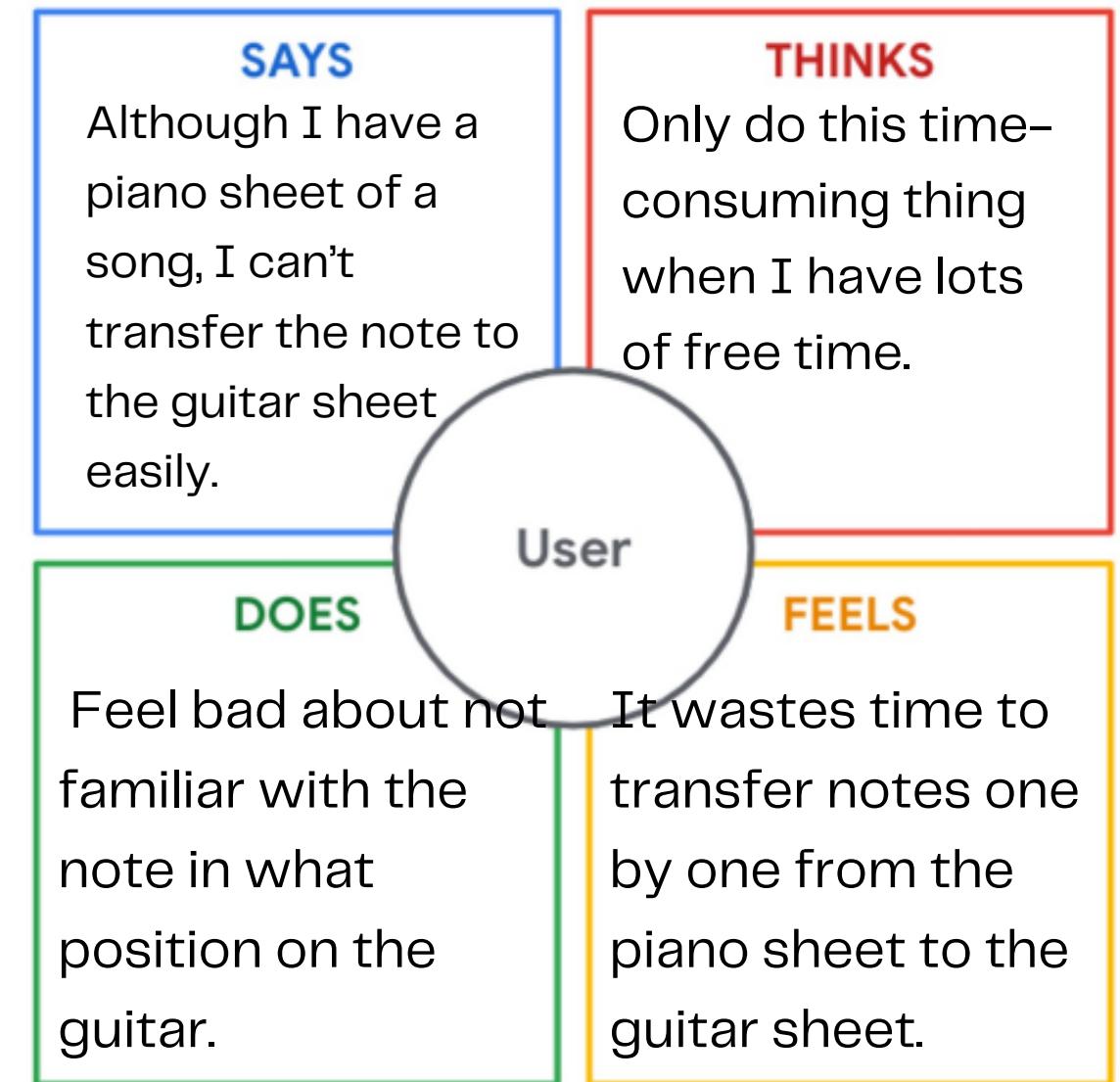
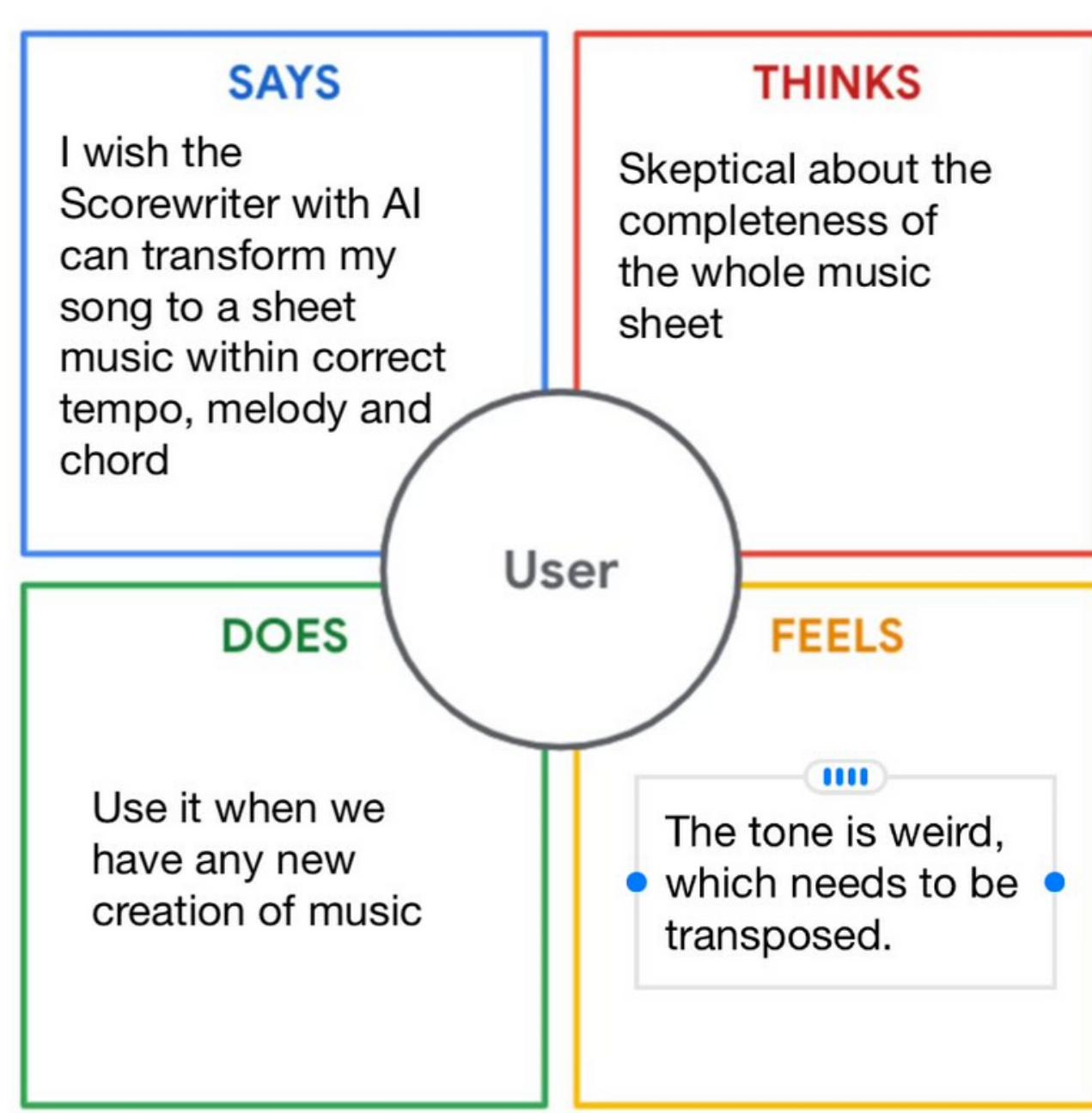
DAY 1

# Target Audience

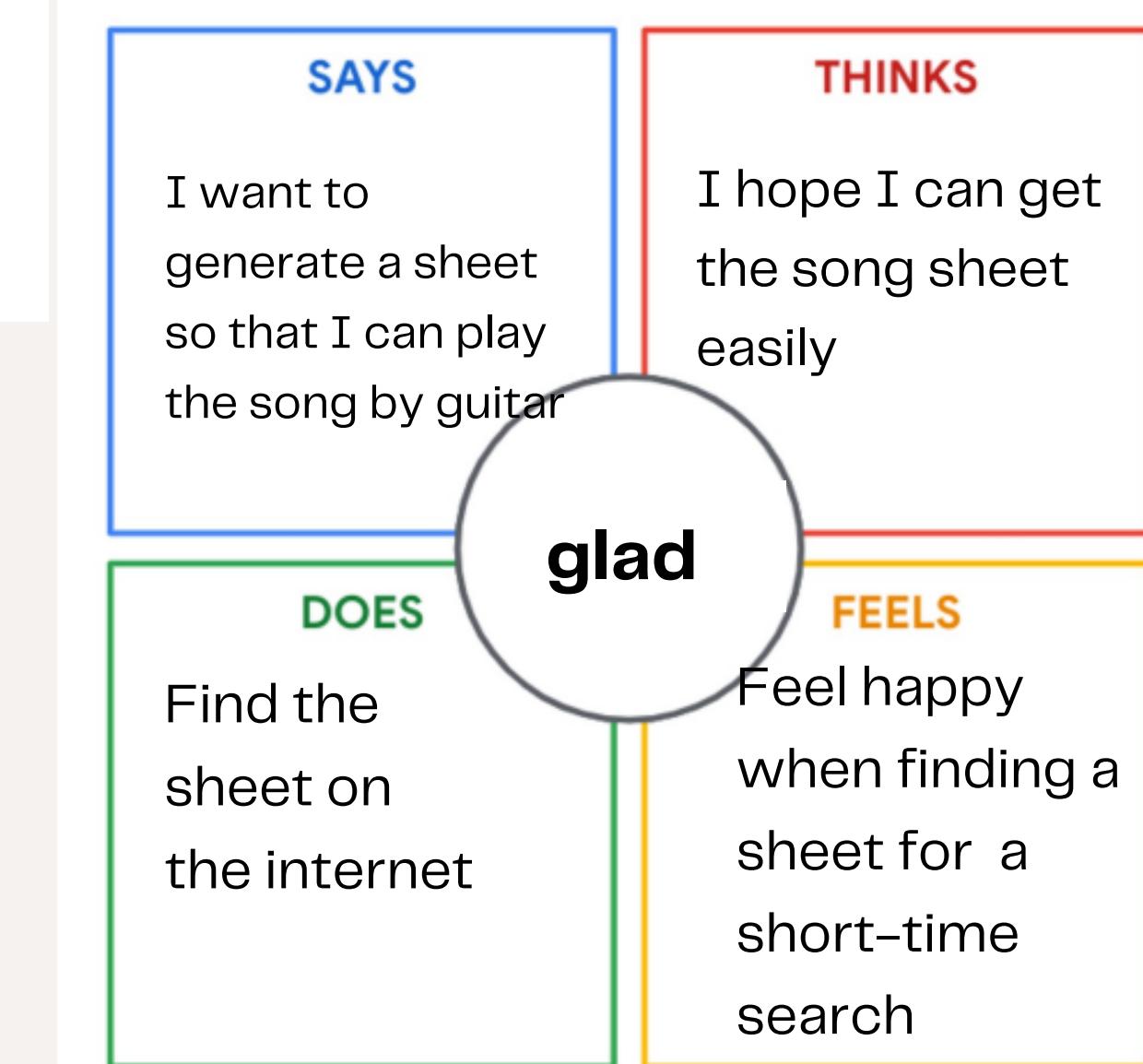
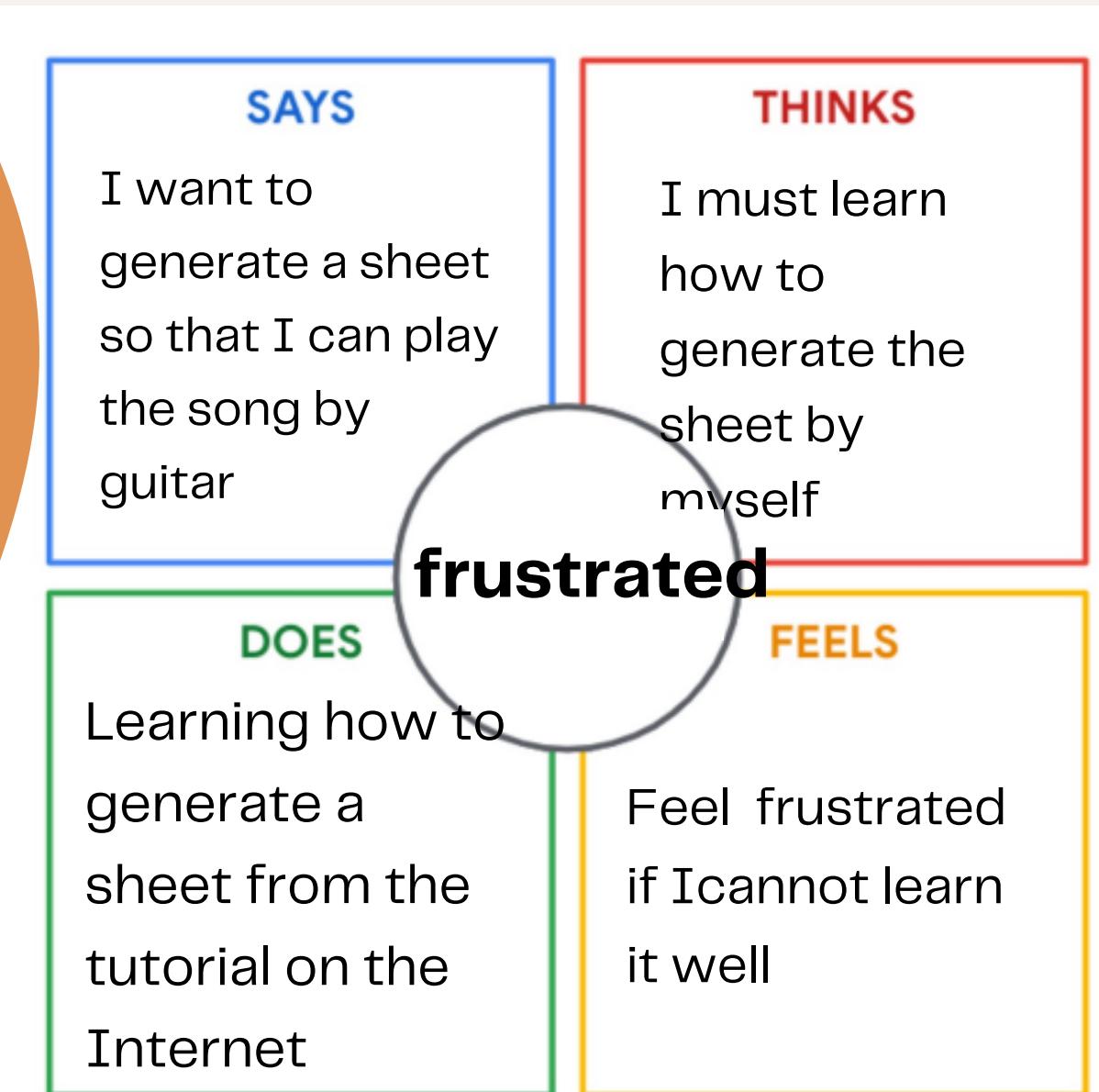
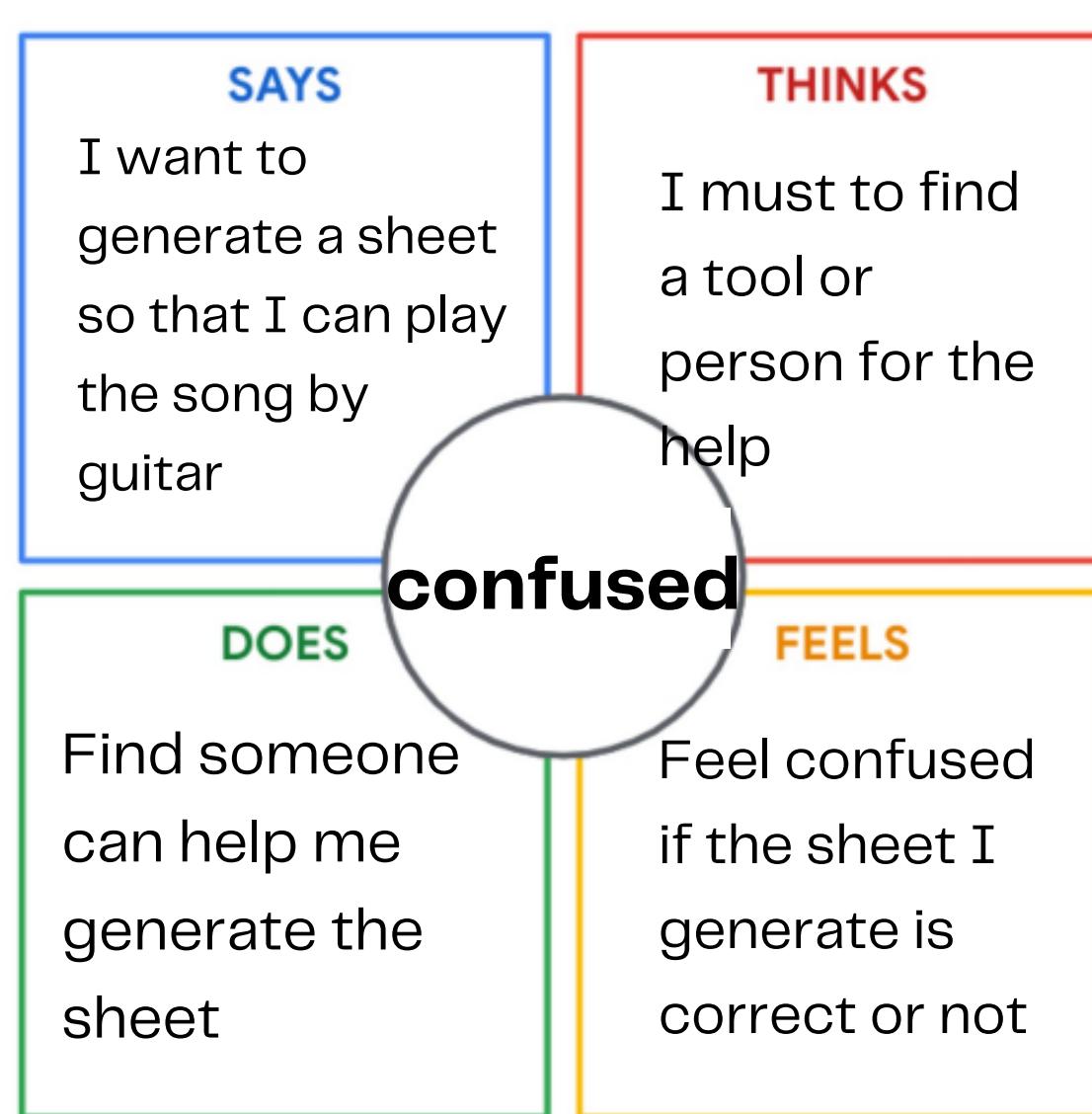
## Target Audience

"Jimmy , a student in a university  
who like to sing and create music  
but cannot play piano , and do  
not have any music theory training,  
need a app to support him  
to produce music."

# Empathy map



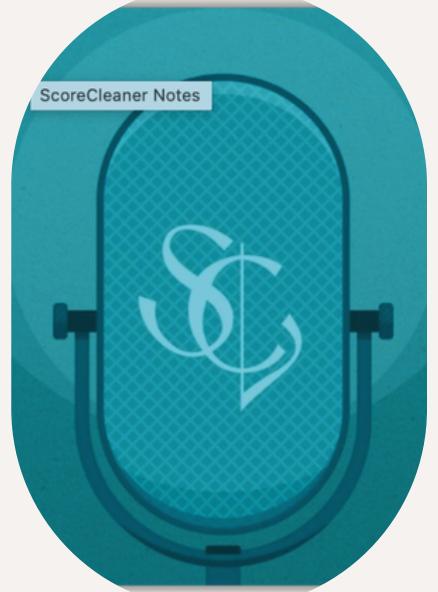
# aggregate Empathy map



# journey maps

Action ↲	Get melody ↲	Record melody ↲	Try to recover the melody ↲	Create sheet ↲
TASK LIST ↲	A. Listen to existing music. ↲ B. Come up with melody. ↲	Use the recorder in the cellphone ↲	A. Find the correct note with piano or other instruments. ↲  B. Ask the people who have absolute pitch for help. ↲	A. Use the transcription software to produce the chord in the completed sheet. ↲  B. Ask the people who have absolute pitch for help. ↲
FEELING ↲ ADJECTIVE ↲	Excited to the experience of creation ↲  Not knowing how to express the melody. ↲	Worried about the quality of the record. ↲	Exhausted during the process to finding the accurate melody and tempo. ↲	Feeling a sense of achievement to create your own music. ↲
IMPROVEMENT ↲ OPPORTUNITIES ↲	Listen more, think more. ↲	Record the music in a quiet environment. ↲	Use AI technology. ↲	Create an APP that generate the whole sheet with chord. ↲

# direct & indirect competitors



ScoreCleaner Notes

## Direct competitors

- Hum On ! (Samsung only)
- ScoreCleaner Notes

## Indirect competitors

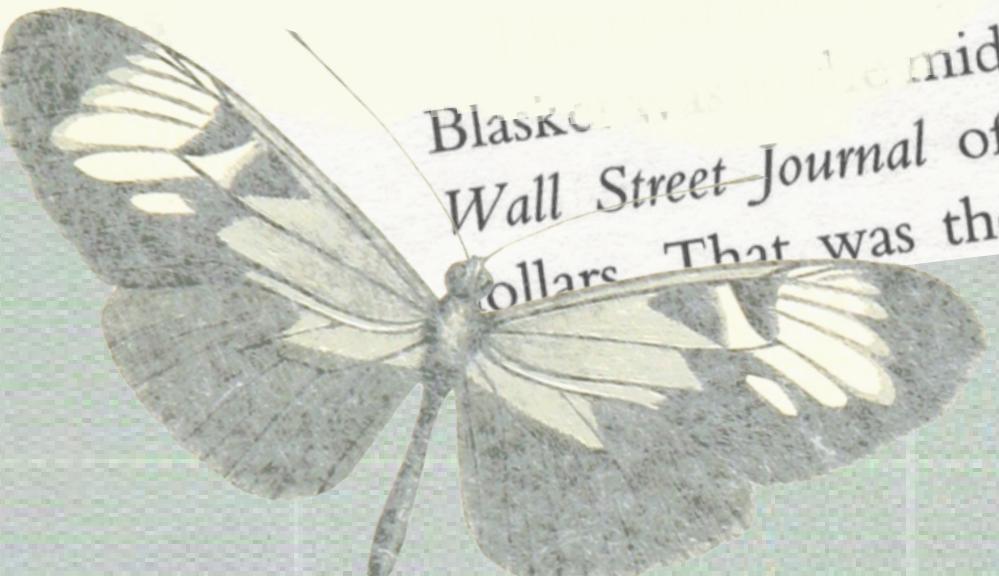
- tuner APP
- piano simulator APP
- piano technician



Hum on !



# DAY 2



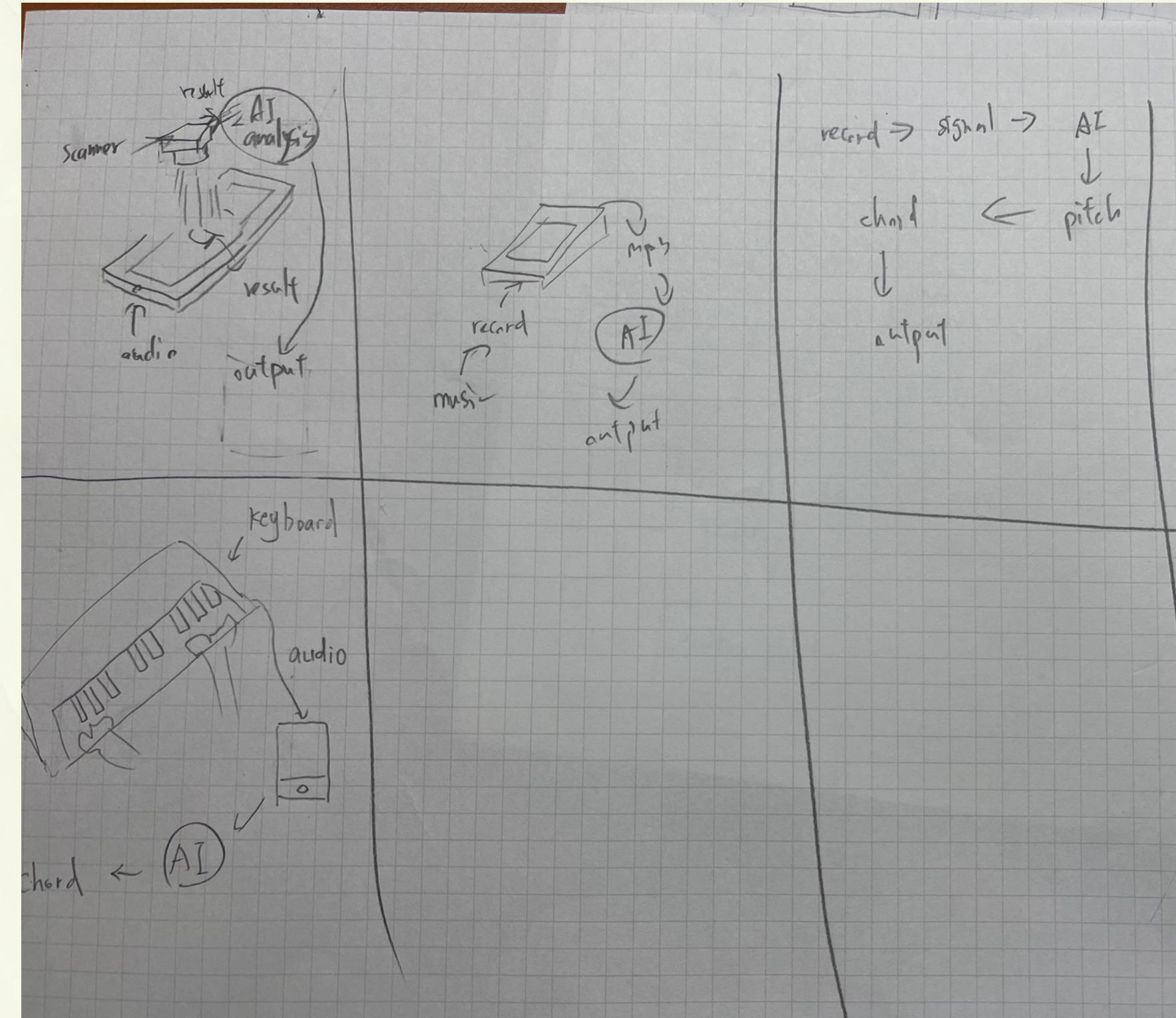
Blasco was offered a mid-eighties Wall Street Journal offer of \$100,000 dollars. That was the s

Breaking Into the  
Film Industry

a character, so  
to nothing.

about who owned the Great

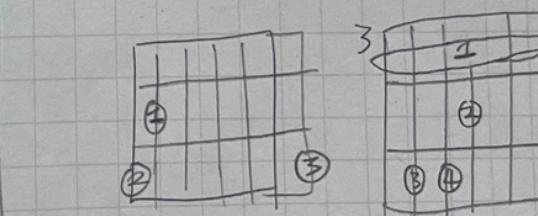
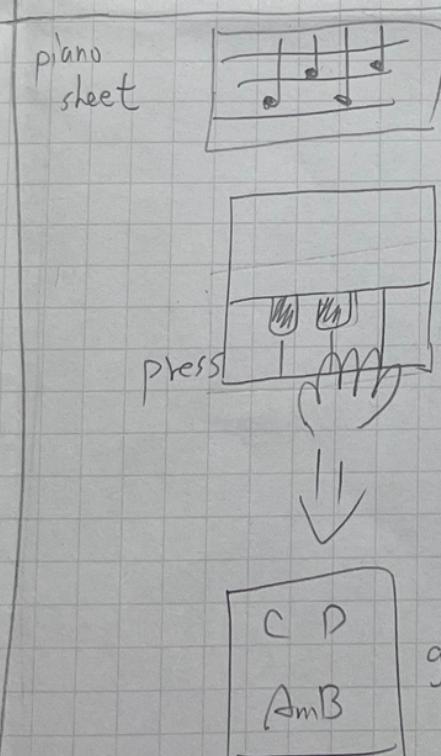
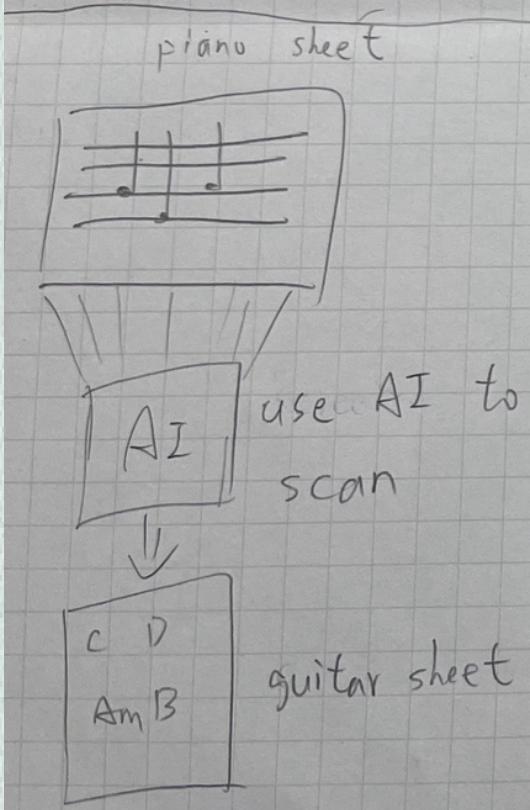
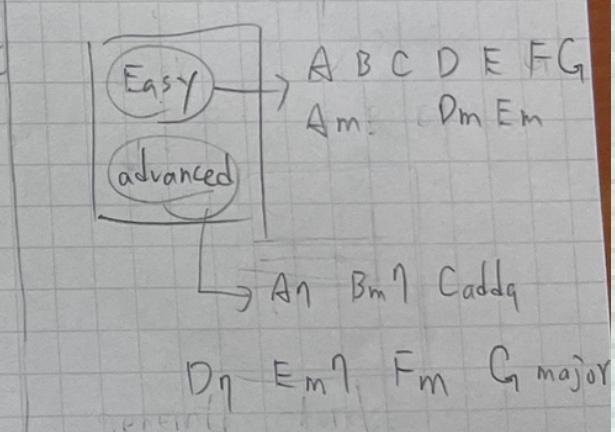
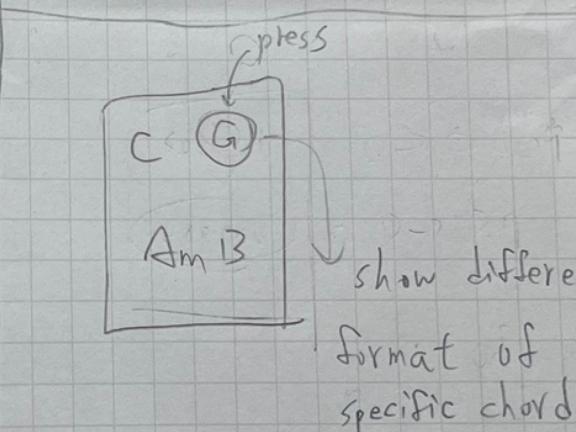
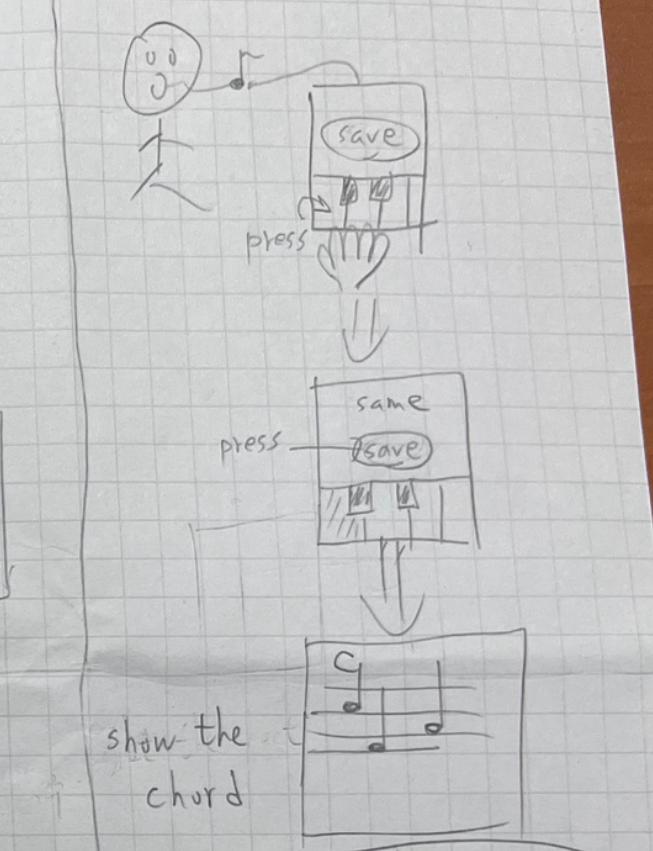
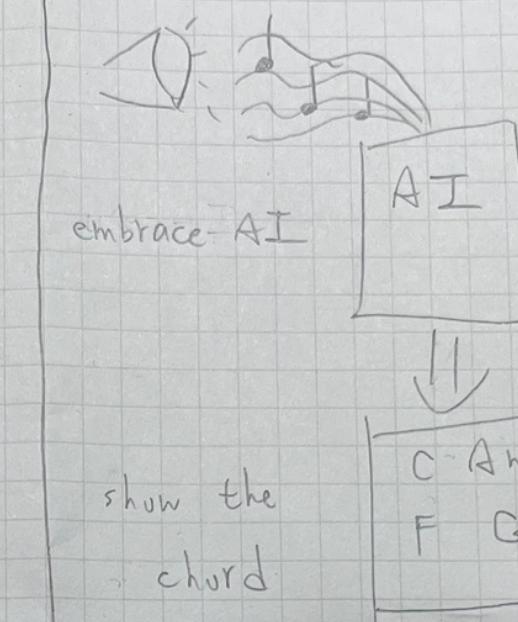
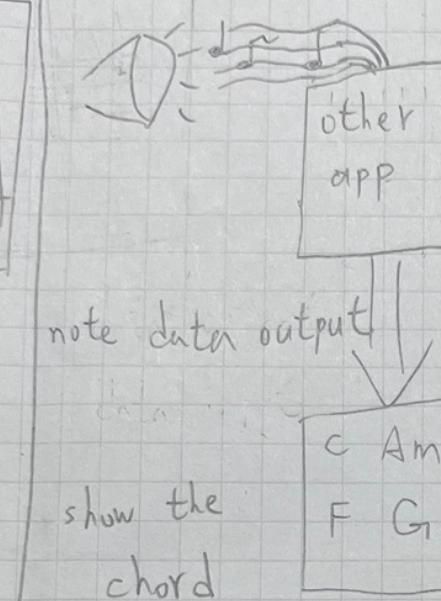
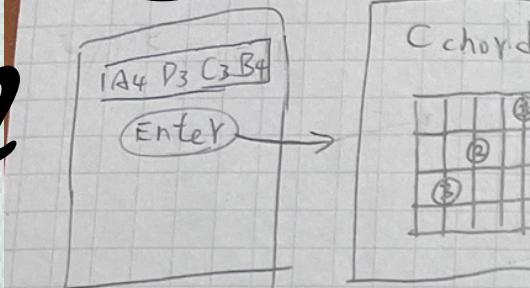
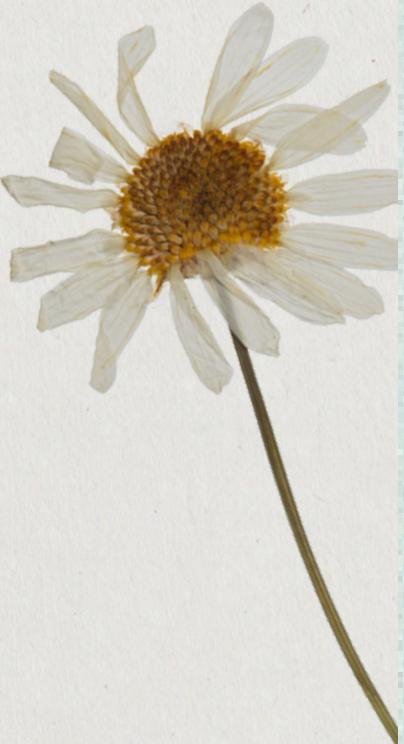
# competing solution



a title-  
ew, ther  
d chaff  
ll wate  
did no  
for  
I and  
never  
resid  
, a k  
poor  
eded  
t can  
e s  
ed r  
e d  
he  
d t  
rim  
sha  
w



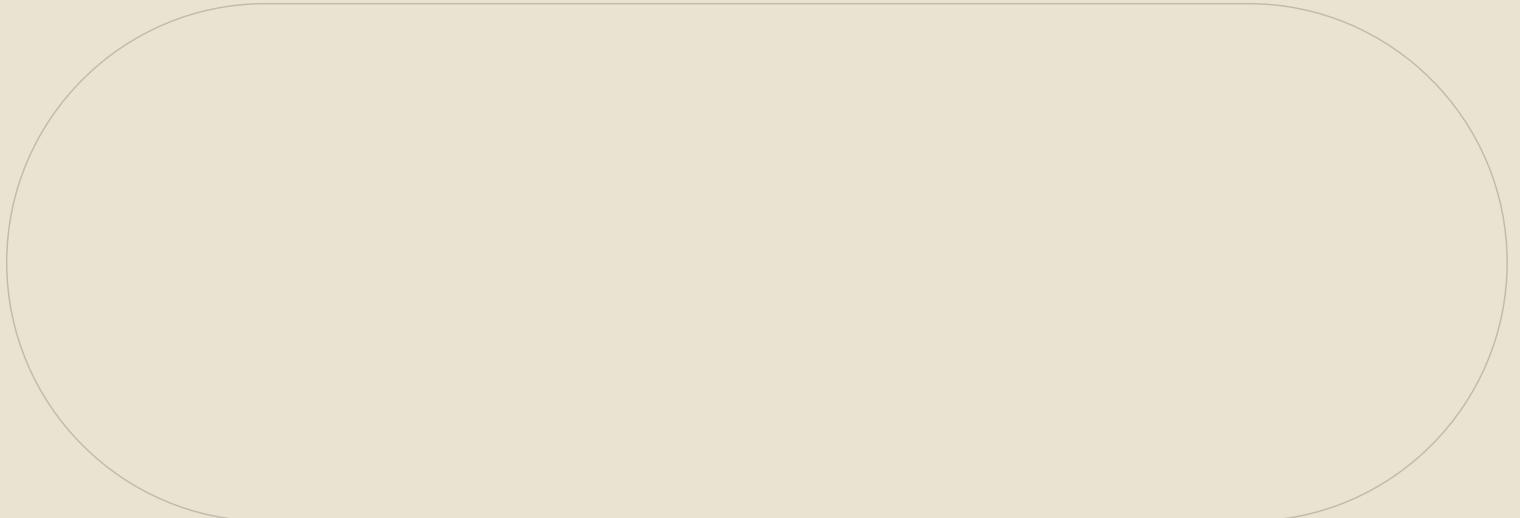
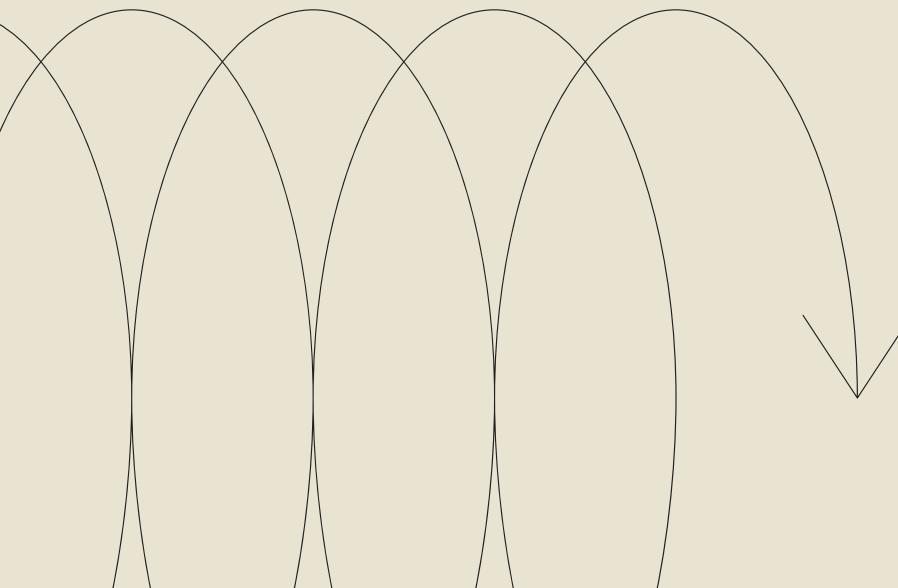
# competing solution





---

# DAY 3



# Hypothesis statements

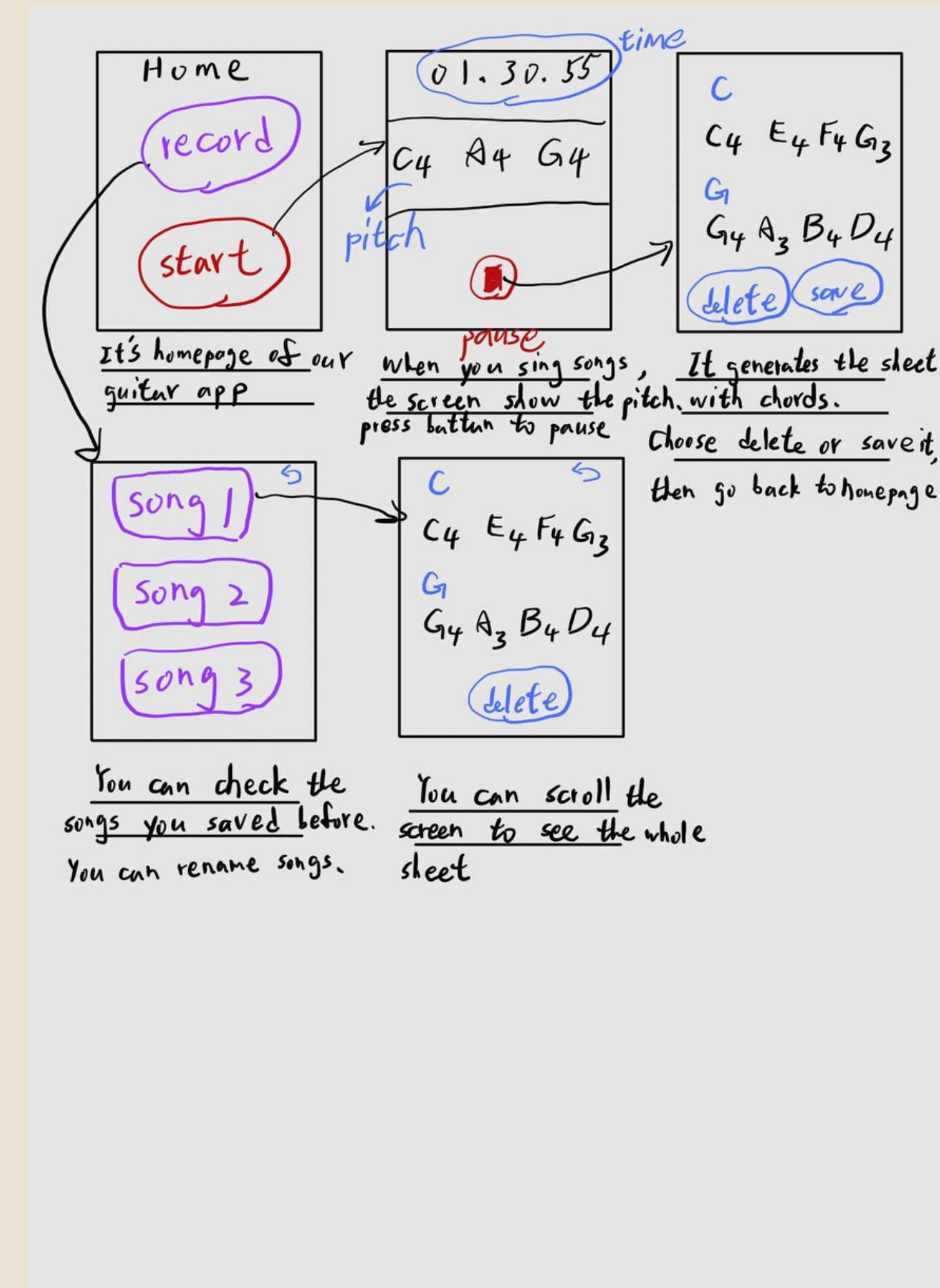
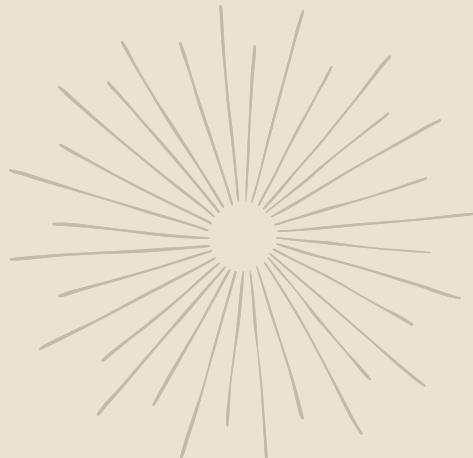


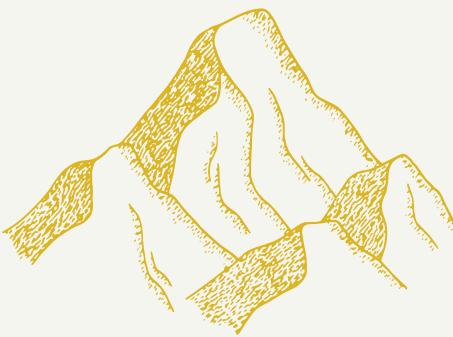
Jimmy is enthusiastic about playing guitar, but he is too busy to generate a sheet by himself. Therefore, he needs an app to help him create a sheet easily and rapidly.

We believe that our guitar app will

- save his time of generating a sheet
- enhance his guitar ability
- satisfy his dream of being a creator

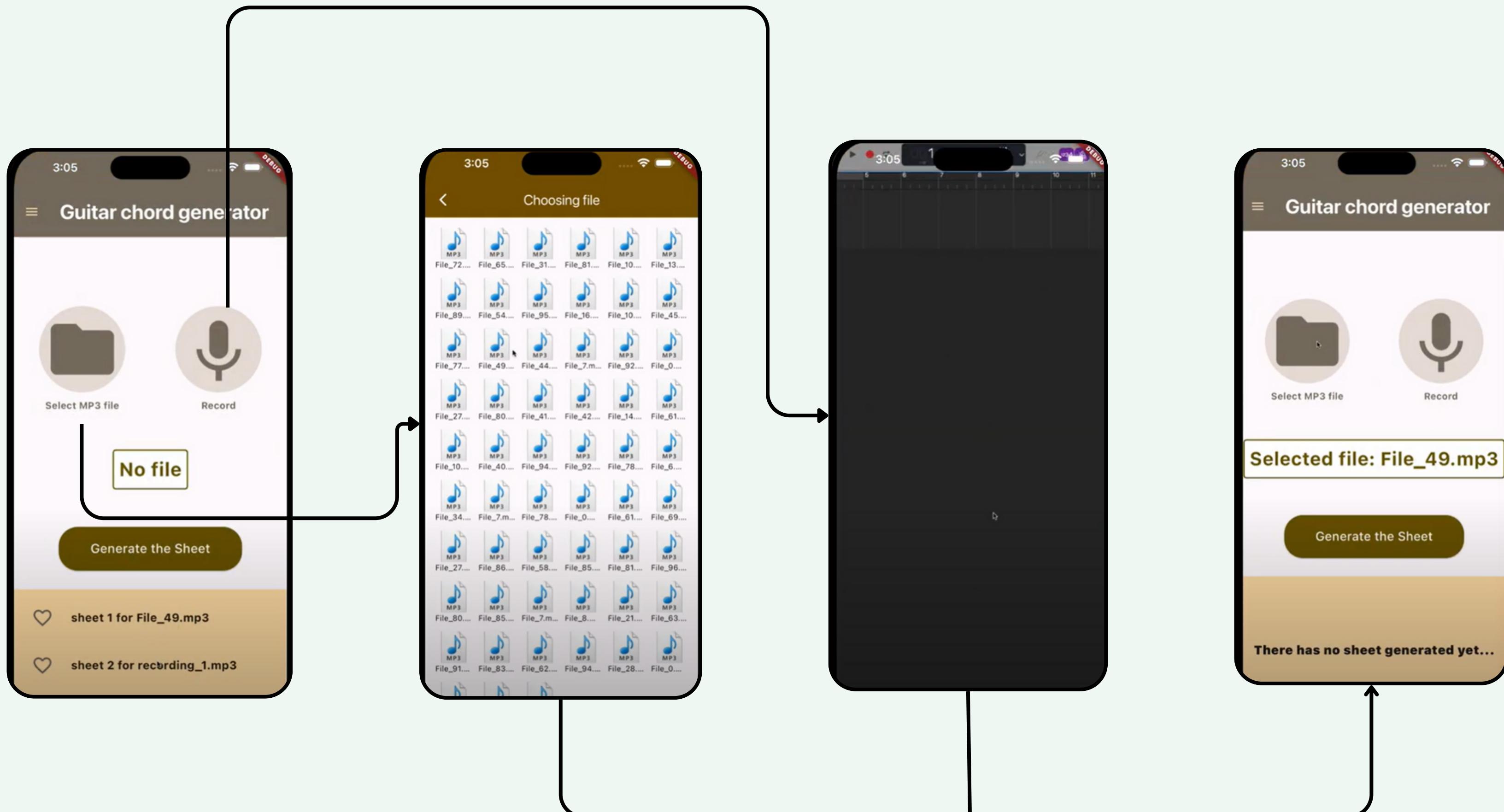
# close-up story board





# DAY 4

# DESIGN



# DESIGN



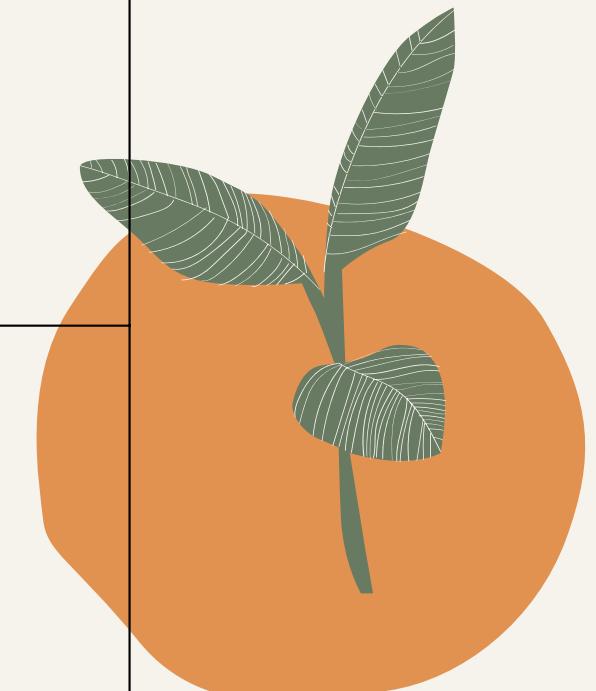
# *Interview Script*

**LOCATION:** NATIONAL TSING HUA UNIVERSITY, PHYSICAL

**TIMELINE:** APRIL 15, 2024

**LENGTH:** 5-10 MINUTES

<b>Introduction</b>	<ul style="list-style-type: none"><li>• <b>Project background:</b> Welcome to ChordMasterAI – Your Personal Music Assistant! Imagine having a tool that not only listens to your favorite tunes but also unfolds the secrets of its melodies in real-time. With ChordMasterAI, transform any MP3 file or live recording into a detailed chord sheet instantly. Our state-of-the-art AI analyzes the music, identifying chords and patterns that even experienced musicians sometimes miss.</li><li>• <b>Research goals:</b> Check if our guitar app is easy to use. Figure out if our guitar app can actually solve guitars' problem to generate a sheet.</li></ul>
<b>Research question</b>	<ul style="list-style-type: none"><li>• How long does it take for participants to complete the tasks?</li><li>• What parts do participants feel confused or get stuck?</li><li>• Are there any function that participants want to add.</li><li>• Does participants think this app is friendly to use?</li></ul>
<b>Key Performance Indicators (KPIs)</b>	<ul style="list-style-type: none"><li>• Time on task</li><li>• Net Promoter Score (NPS)</li><li>• User error rates</li><li>• System Usability Scale (SUS)</li></ul>
<b>Participants</b>	participants are college students. Half can play music instrument, and they face the same problem to generate the sheet when hearing a catchy melody



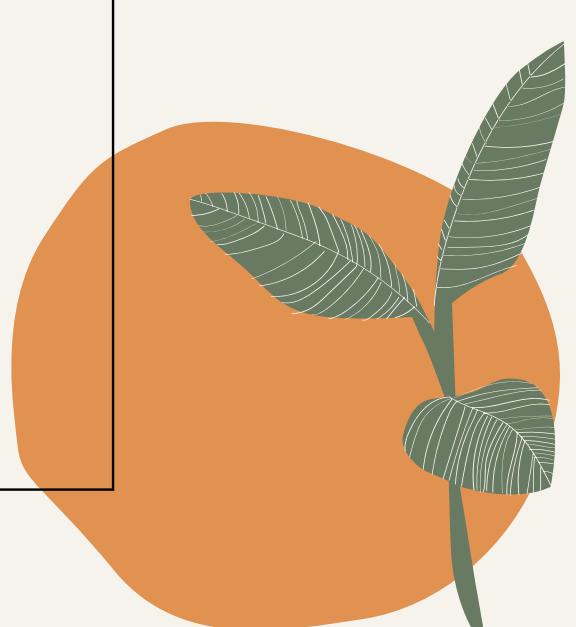
## **Script**

### **During the unmoderated usability study**

- I Prompt 1: Add new file
- I Prompt 2: Add new record file
- I Prompt 3: Add new sheet
- I Prompt 4: Check out how to contact author
- I Prompt 5: return to homepage from any page

### **Following questions for testers:**

- 1. Are there any functions that could be added to make this app more appealing to you?
- 2. Who would you recommend using this app? Why?
- 3. Do you find this app convenient or even useful to you? Which part of it makes it good or bad?
- 4. If you could decide how the app look like, how would you like to modify it? Why?
- 5. Is it easy to understand every button's usage just by its appearance? Is it intuitive for users?





DAY 5

TAKING NOTES

# TAKING NOTES

WELCOME TO TODAY'S CLASS / TODAY'S AGENDA

TASK	CLICK PATH	OBSERVATION	QUOTES	TASK COMPLETION
Write the task number	Record the path the participant took to complete the task	Note down behavior, opinion, and attitude along with any errors, issues, or areas of confusion	Note any significant quotes(positive and negative)	1.easy to complete 2.compete with difficulty 3.not completed
Prompt 1:	select MP3 file->click the file	correct action		1
Prompt 2:	record->homepage ->record	hesitate what's the next step when entering the record page	record page is not intuitive to use	2
Prompt 3:	generate the sheet -> click the song	correct action		1
Prompt 4:	click the song ->homepage->other information	feel confused to know what is the meaning of other information	other information can provide more useful information and not confused with other function	2

PARTICIPANT

**TASK****CLICK PATH****OBSERVATION****QUOTES****TASK COMPLETION**

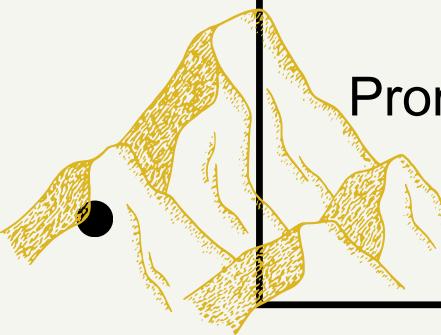
<b>TASK</b>	<b>CLICK PATH</b>	<b>OBSERVATION</b>	<b>QUOTES</b>	<b>TASK COMPLETION</b>
Write the task number and directions here	Record the path the participant took to complete the task	Note down behavior, opinion, and attitude along with any errors, issues, or areas of confusion	Note any significant quotes(positive and negative)	1.easy to complete 2.compete but with difficulty 3.not completed
Prompt 1:	menu->back->menu ->select MP3 file ->click the file	don't click the image to choose file		2
Prompt 2:	record->homepage	correct action		1
Prompt 3:	generate the sheet	correct action		1
Prompt 4:	chaos->other information	chaos	our prompt confuse the user.	2

**PARTICIPANT 2**

# PARTICIPANT 3

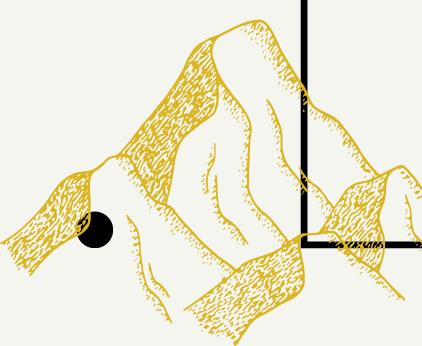
WELCOME TO TODAY'S CLASS / TODAY'S AGENDA

TASK	CLICK PATH	OBSERVATION	QUOTES	TASK COMPLETION
Write the task number and directions here	Record the path the participant took to complete the task	Note down behavior, opinion, and attitude along with any errors, issues, or areas of confusion	Note any significant quotes(positive and negative)	1.easy to complete 2.compete but with difficulty 3.not completed
Prompt 1:	menu->select MP3 file->click the file	correct action		1
Prompt 2:	record->homepage	correct action		1
Prompt 3:	generate the sheet -> click the song	correct action	don't notice the like button	1
Prompt 4:	menu->favorite->back->other information	hesitate to choose what function when clicking the menu	make the menu clearly and provide more information	2



**TASK****CLICK PATH****OBSERVATION****QUOTES****TASK COMPLETION**

<b>TASK</b>	<b>CLICK PATH</b>	<b>OBSERVATION</b>	<b>QUOTES</b>	<b>TASK COMPLETION</b>
Write the task number and directions here	Record the path the participant took to complete the task	Note down behavior, opinion, and attitude along with any errors, issues, or areas of confusion	Note any significant quotes(positive and negative)	1.easy to complete 2.compete but with difficulty 3.not completed
Prompt 1:	select MP3 file->click the file	correct action		1
Prompt 2:	record->homepage	correct action		1
Prompt 3:	generate the sheet -> click the song	correct action		1
Prompt 4:	click the song ->homepage->other information	correct action		1



**PARTICIPANT 4**

# KPIS

**STRONGLY  
DISAGREE**

**STRONGLY  
AGREE**

I think I will use this app everyday

Strongly Disagree	Strongly Disagree	Strongly Disagree	Disagree	Agree	Strongly Agree
-------------------	-------------------	-------------------	----------	-------	----------------

I think this app is easy to use

Strongly Disagree	Strongly Disagree	Strongly Disagree	Disagree	Agree	Strongly Agree
-------------------	-------------------	-------------------	----------	-------	----------------

I think I need expert's help to use this app

Strongly Disagree	Disagree	Agree	Strongly Agree	Strongly Agree
-------------------	----------	-------	----------------	----------------

I think this app is functional

Strongly Disagree	Strongly Disagree	Strongly Disagree	Disagree	Agree	Strongly Agree
-------------------	-------------------	-------------------	----------	-------	----------------

I think this app can solve my problems

Strongly Disagree	Strongly Disagree	Strongly Disagree	Disagree	Agree	Strongly Agree
-------------------	-------------------	-------------------	----------	-------	----------------

I think this app can help me learn guitar

Strongly Disagree	Strongly Disagree	Agree	Agree	Agree	Strongly Agree
-------------------	-------------------	-------	-------	-------	----------------

# INSIGHTS

## appearance

It can be more colorful  
to be eye-catching

Button in record page  
can be bigger

It's weird that both  
homepage and menu  
list have the same  
function selection

## function

record page is a little  
bit complex to know  
how to use

Hope it can choose  
difficulty extent  
suitable for rookie or  
master

Maybe it can add  
language switch setting

## show dialog

Hope It can have a tips  
to let me know I have  
already add a file.

Sometimes I don't  
know what action I did.

I feel confused when it  
starts to record



Thanks for listening