

A8: High Fi Prototype Check-in

Clarus

**Seamless, flexible communication between founders
and designers**

Avey E, Candace C, Siya G, Tyler A

Team Members



Siya G
she/her

CS (AI) + Econ '26
CS (HCI) '27



Avey E
she/her

Symsys '27
CS (HCI) '27



Candace C
she/her

Design '26
CS (HCI) '27



Tyler A

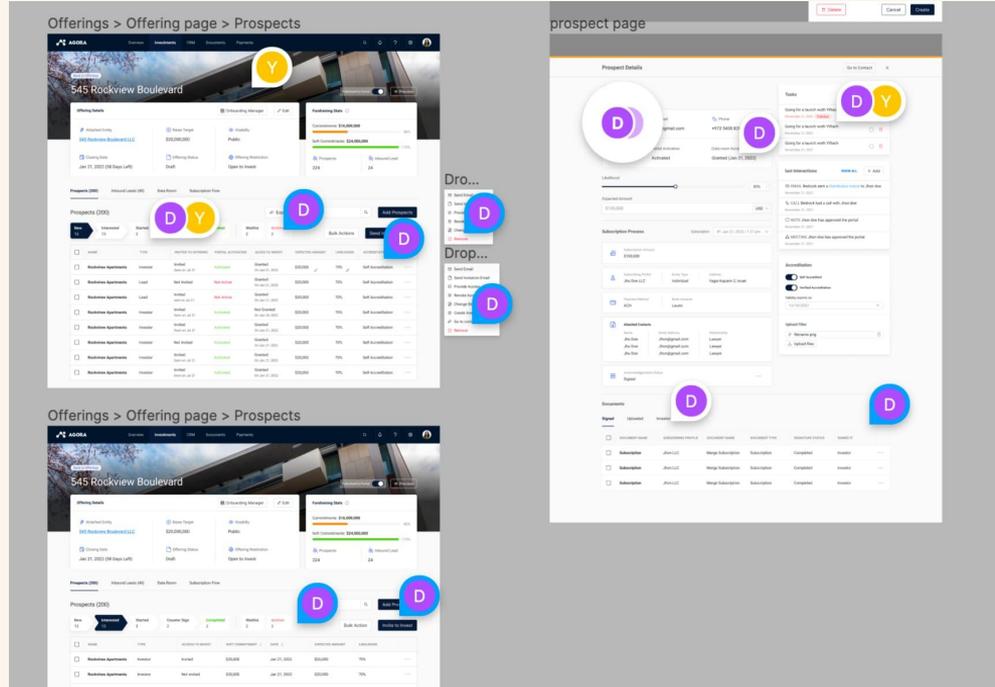
Symsys '26
CS (HCI) '27

Communication in current design tools is disorganized

comment flows in current tools are:

text-based

overwhelming



disorganized

not transferable
to to-dos

lacking revision
history

Our solution synthesizes and organizes information

our platform

empowers users with **multi-modal** communication



text



voice



video

Status quo

text-based

disorganized

overwhelming

not transferable to to-dos

lacking revision history

Clarus

multimodal: voice, video, and text support

filtered by role, modality, element, etc.

synthesized with AI

transformed into role-specific to-do lists

digestible and accessible documentation of edits and comments

Roadmap

1

Heuristic Evaluation
Results

2

UI Revision

3

Prototype
Implementation

4

High-Fi Demo

Heuristic Evaluation Results

Violation Quantity & Severity Summary

Heuristic	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
H1: Visibility of System Status	0	2	3	0	1	6
H2: Match b/w System & World	0	1	2	2	0	5
H3: User Control & Freedom	0	0	0	3	2	5
H4: Consistency & Standards	0	5	2	1	0	8
H5: Error Prevention	0	0	1	3	0	4
H6: Recognition not Recall	0	0	3	2	0	5
H7: Flexibility & Efficiency of Use	0	0	7	1	0	8
H8: Aesthetic & Minimalist Design	1	1	1	2	0	5
H9: Help Users with Errors	0	0	1	0	0	1
H10: Help & Documentation	0	2	0	0	0	2
H11: Accessible Design	0	1	2	1	0	4
H12: Value Alignment & Inclusion	0	1	1	0	0	2
Total Violations	1	13	23	15	3	55

55

Total Violations

Most Violations

8

H4

**Consistency &
Standards**

Vocabulary, buttons,
and colors were not
fully standardized

8

H7

**Flexibility &
Efficiency of Use**

Concentrated in the
moderate task (calling)

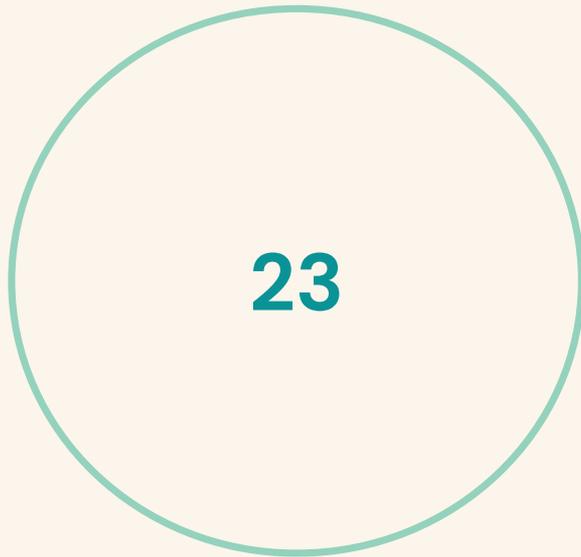
6

H1

**Visibility of System
Status**

Lacking confirmation,
progress indicators

Most Violations By Task



Simple Task

Unclear controls, inconsistent UI, and missing exit paths disrupted quick interactions.



Moderate Task

Missing visual context, unclear instructions, and weak accessibility forced users to rely on recall.



Complex Task

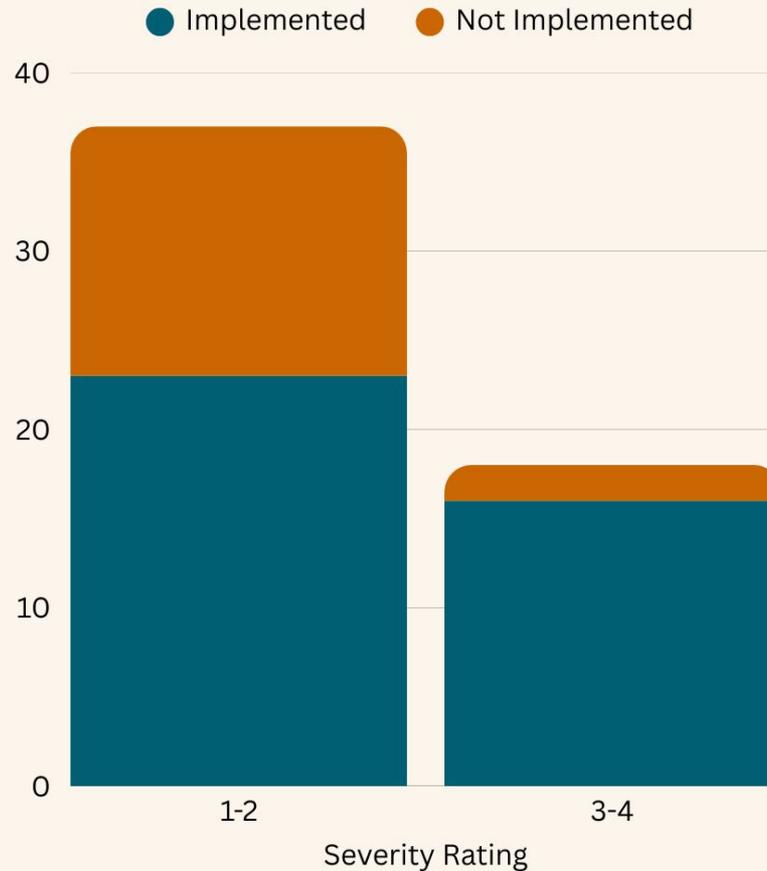
Lack of guidance and safeguards in multi-step flows led to confusion and lost progress.



Miscellaneous

Minor aesthetic inconsistencies that added small but noticeable friction.

Revisions



39

Total Revisions

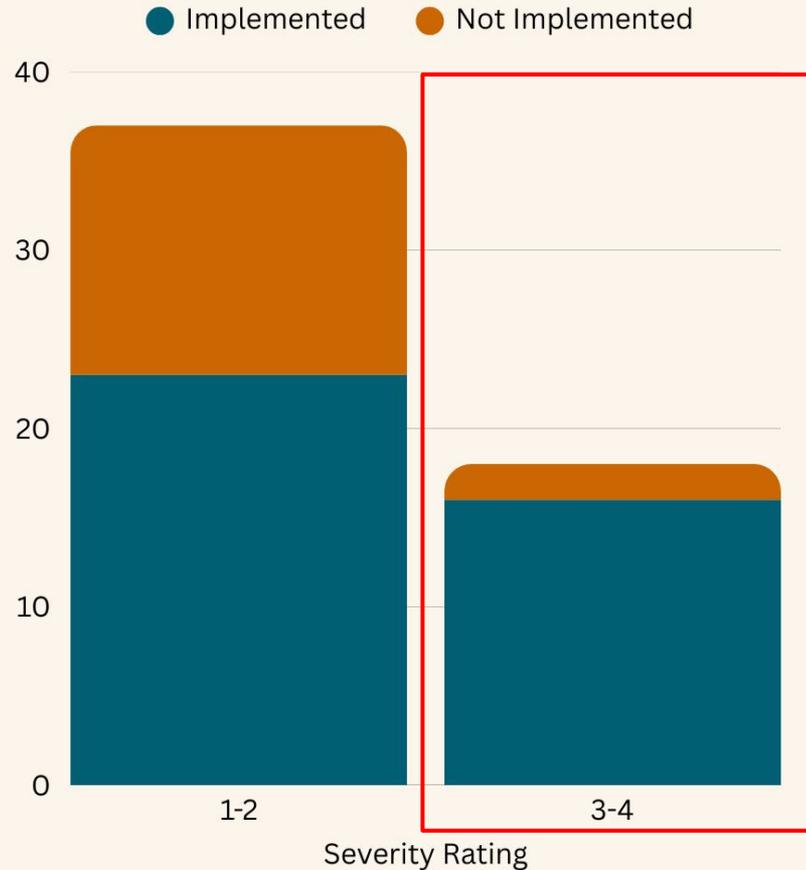
62%

Implementation
rate (12/37)

88%

Implementation
Rate (16/18)

Revisions



39

Total Revisions

62%

Implementation
rate (23/37)

88%

Implementation
Rate (16/18)

High Level Summary

Users
frequently
felt **stuck**



missing or unclear
exit paths

High-risk
actions felt
**abrupt or
unsafe**



lack of feedback
and confirmation

Moderate
task caused
**brain
overload**



missing visual
context,
instructions, and
accessibility

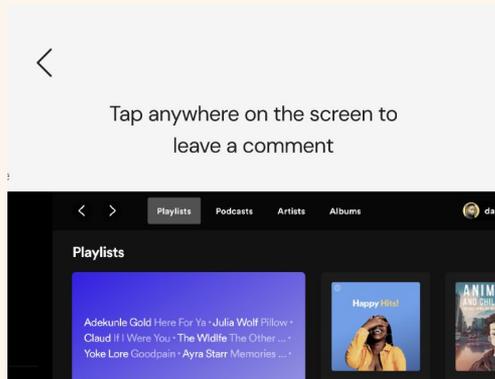
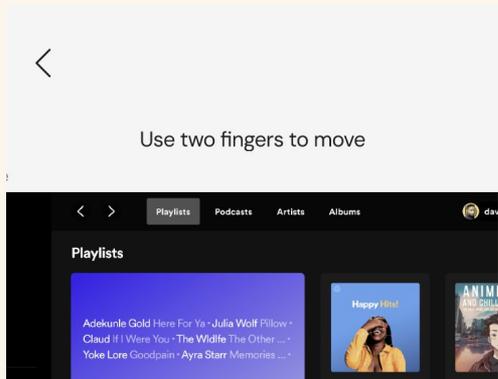
UI & Product Revisions

Simple Task: Adding Comments

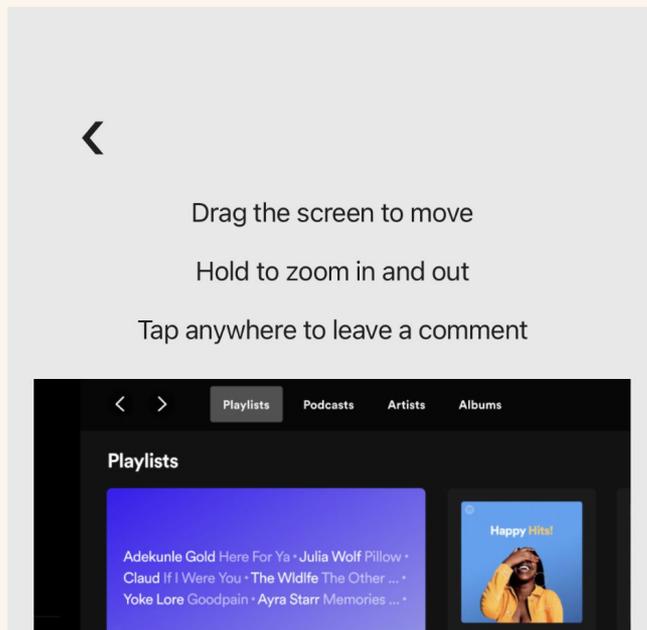
User instruction simplicity

Before

H2 “Use two fingers to move” stays even after movement and instructions for leaving a comment only appear after tapping



Revision



Combined instruction to decrease interaction length

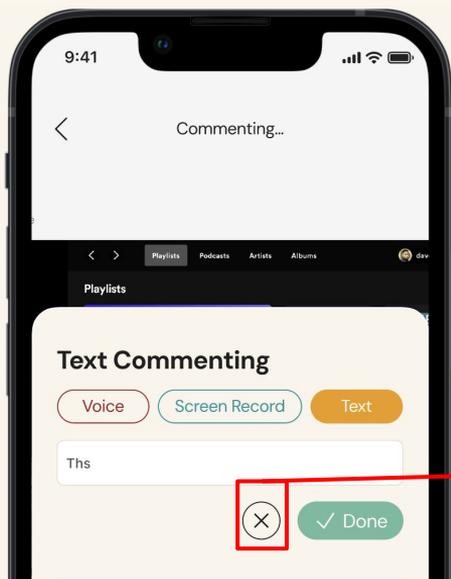
Simple Task: Adding Comments

Flexibility Violations

Revisions

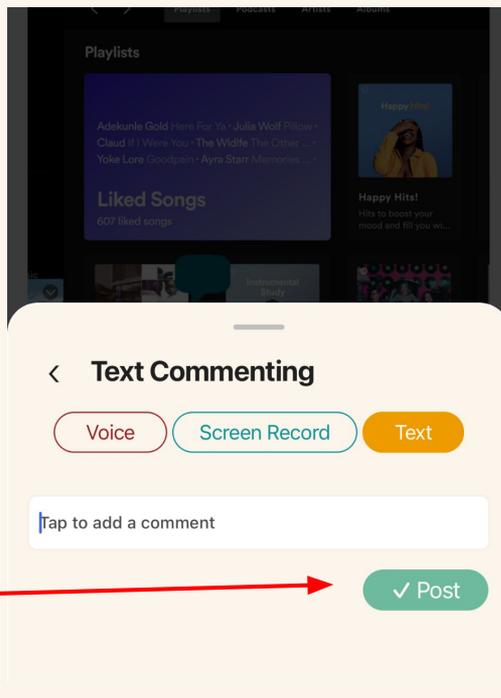
Before

H8 Popup takes up half the screen, making it hard to see design file

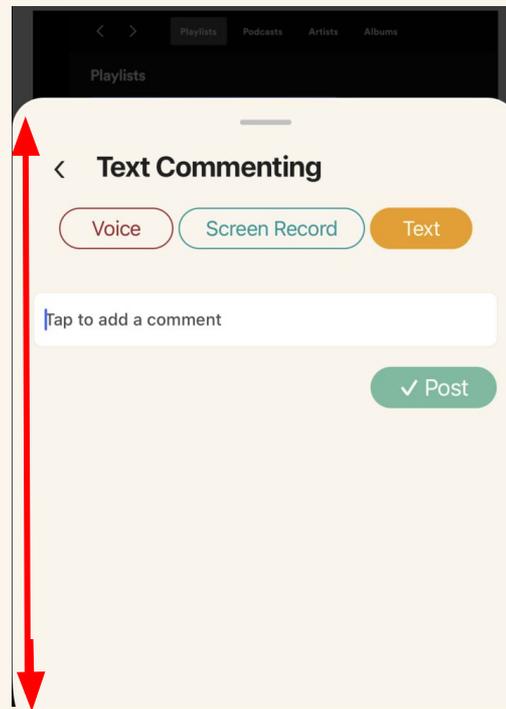


H3 Difficulty seeing and using back buttons

Replaced "X" button with back button



Draggable sliding screen



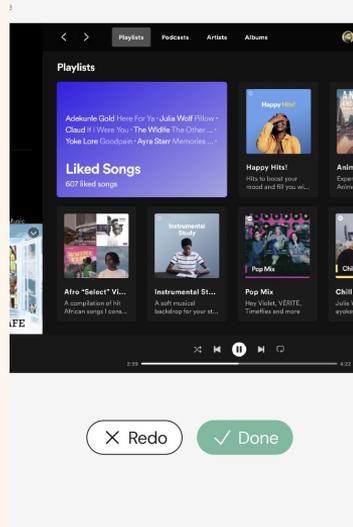
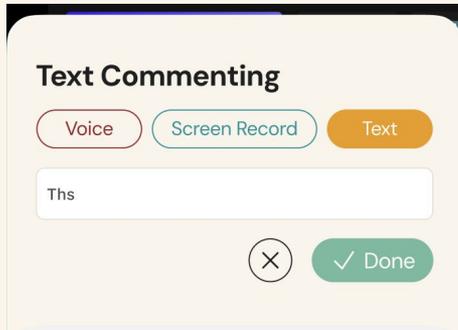
Simple Task: Adding Comments

Error and Flexibility Violations

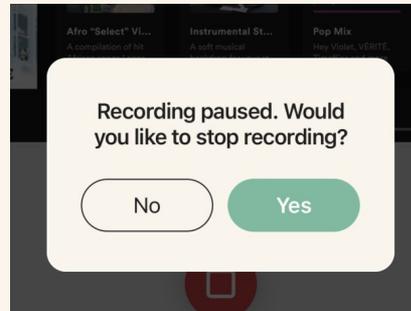
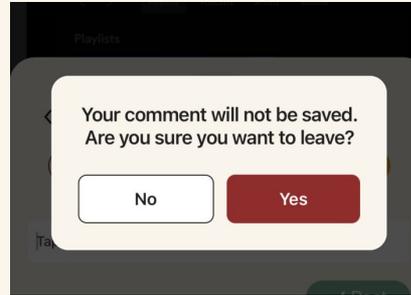
H3 “X” button restarts users instead of pause/play

H5 When clicking back and “X”, users will lose their progress

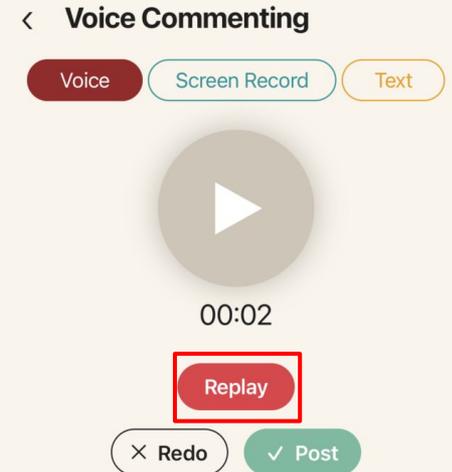
H6 Clicking “X Redo” restarts the flow, users can't replay



Confirmation modal before ending recording and closing comments



Added replay button for voice commenting



Simple Task: Adding Comments

Color Consistency

Before

H4 Saturation of start buttons inconsistent

Voice Commenting



Click to record

Becomes more vibrant

Screen Record Commenting



Click to record

You'll be able to move the controls while recording.

Becomes more faint

Revision

Increased vibrancy of the screen recording start to be consistent

< **Screen Record Commenting**



Tap to record

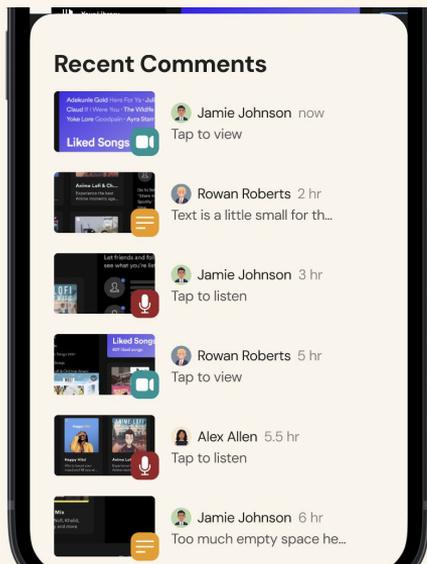
You'll be able to move the controls while recording.

Simple Task: Adding Comments

Deleting comments

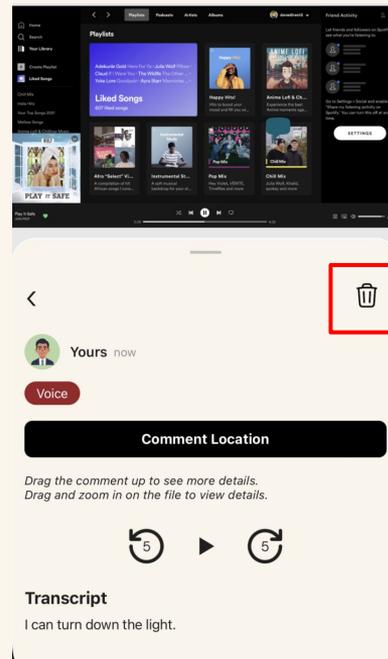
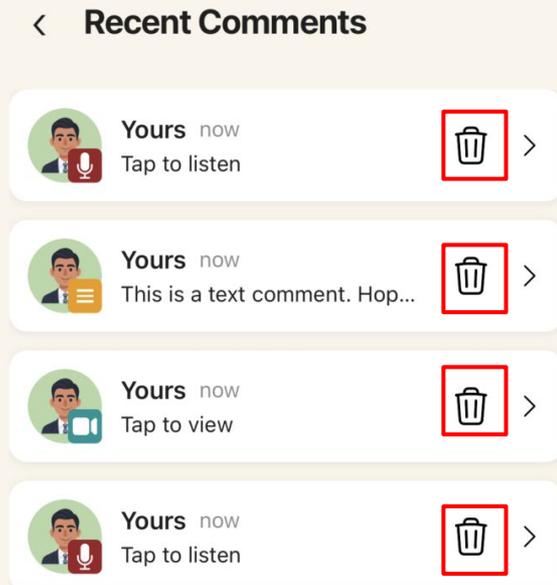
Before

H3 Users can't remove or delete comment



Revision

Added a delete button to comment cards for comments user made

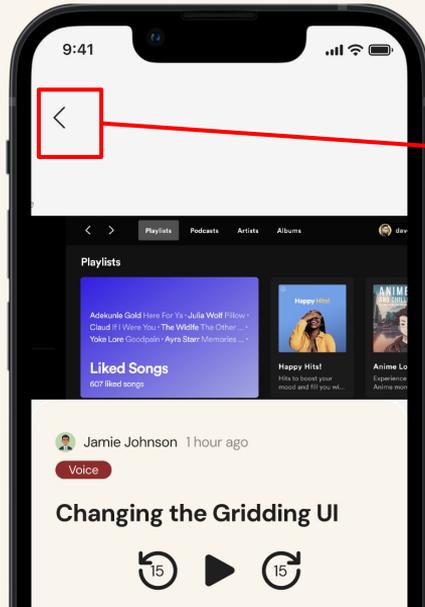


Moderate Task: To Do's

Back button confusion

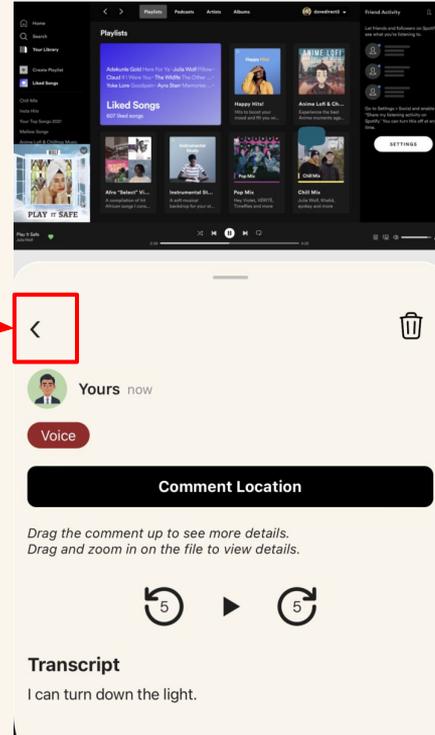
Before

H3, H8 Back button is unclear and/or not visible



Revision

Moved back button from top of screen to directly on comment modal



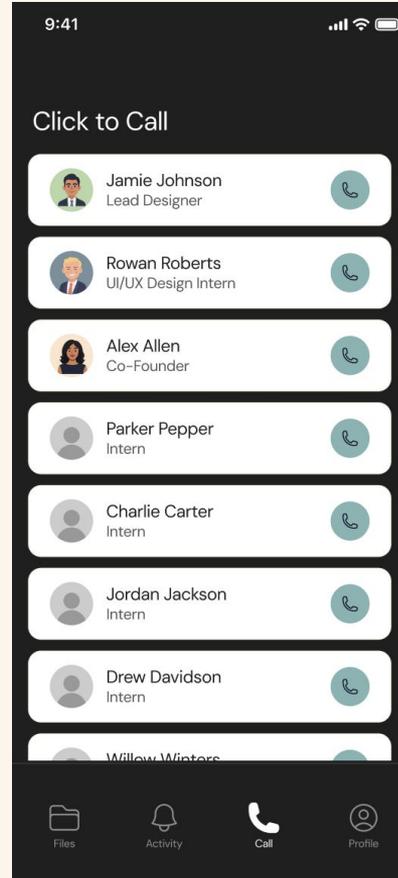
Complex Task: Calling Team

Clicking to call

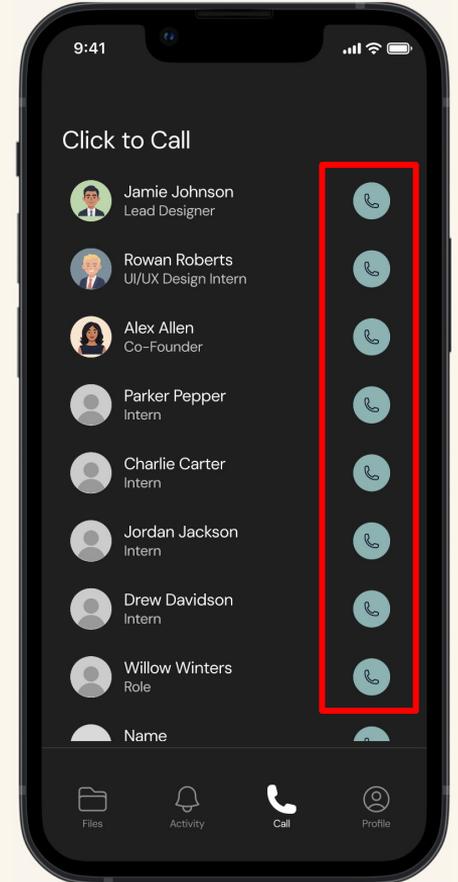
H2 Users can call someone by clicking on the profile picture and entire card

Users can only call clicking the call button

Before



After

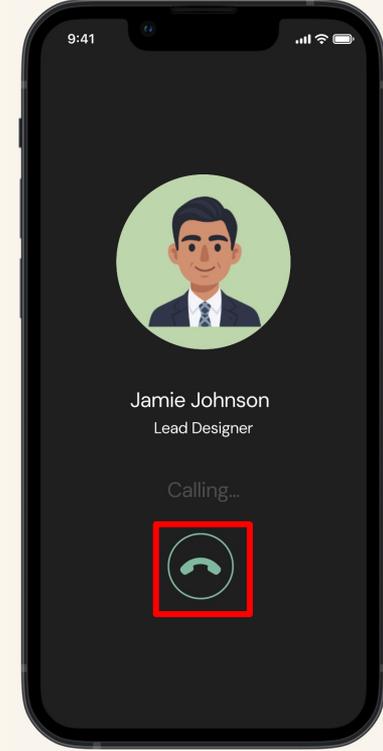
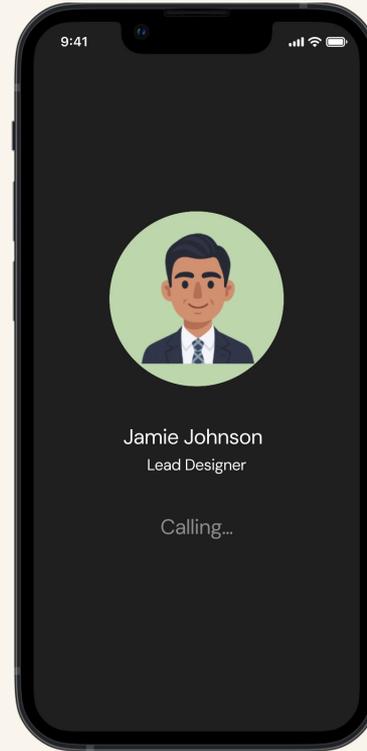


Complex Task: Calling Team

Active Calling

H3 When users are calling, there's no way to leave

Added end button to calling screen

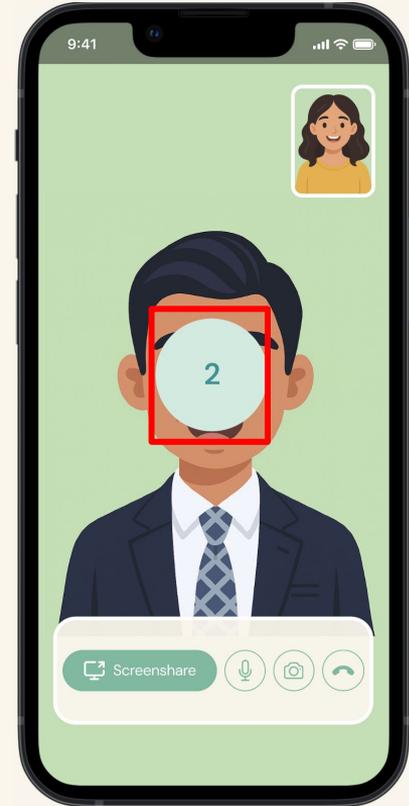
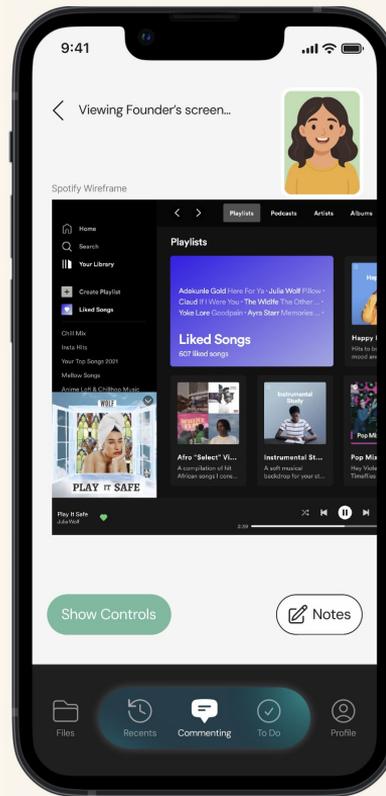


Complex Task: Calling Team

Sharing Screen Warning

H5 When users share their screen, there's no confirmation to start sharing

Included a countdown before sharing screen

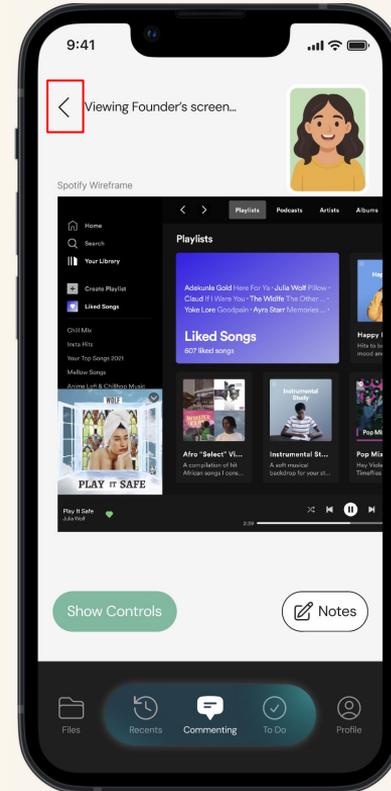


Complex Task: Calling Team

Sharing Screen Warning

H5 Back button and “Stop Screen Sharing” have same functionality

Back button will allow users to navigate through the app instead of controlling screen recording functionality



Did not implement

H11 Accessibility

No live transcription and captions during live calls

- Adds to clutter during calls which many users did not like during interviews in A5

H7 Flexibility and Efficiency of Use

No ability to call someone while commenting, must navigate to “files”

- From interviews in A5, we discovered that users prefer having the call button here
- Gives users the ability to start a call and then navigate to a file. More control and usability

Usability Goals

Usability Goals

1

User Satisfaction

Relevance and easy of use for each task

2

Navigation Accuracy

Misclicks and uncertainty for each task

3

Task Efficiency

Ability and time to complete tasks

Progress Towards Usability Goals

User Satisfaction



Progress

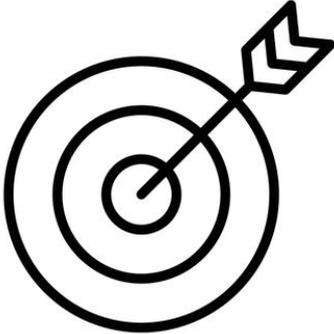
- Reduced early confusion by simplifying and **combining movement + comment instructions**.
- Improved **visibility of essential controls** (e.g., back arrow contrast, clearer icons).
- Prevented users from feeling stuck by **adding clearer exit paths** during calling flows.

Still to Consider

- **Explore personalization** of comment flows or call UI to match individual work styles. Add **lightweight success feedback** (e.g., "Saved", "Comment added") to reinforce confidence.

Progress Towards Usability Goals

Navigation Accuracy



Progress

- Reduced user confusion by adding **clear back buttons**.
- Reduced accidental call triggers by **restricting calls to the call button only**.
- Made the **comment panel draggable + resizable**, allowing users to see the underlying design and orient themselves better.
- Improved color consistency for start buttons, helping users instantly **recognize action states**.

Still to Consider

- Add lightweight micro-animations to **reinforce where users are navigating** next.
- **Track backtrack frequency** to identify flows where navigation remains unclear.

Progress Towards Usability Goals

Task Efficiency



Progress

- Improved the to-do list by **clarifying the back button** and improving context visibility.
- Added **delete options for comments**, preventing users from re-recording or re-writing due to mistakes.
- Reduced rework by making critical actions (e.g., closing recordings) **explicit and reversible**.

Still to Consider

- Add **smart suggestion shortcuts** during commenting (e.g., auto-jump to last comment location).
- Explore **batch actions** (e.g., resolving multiple comments) to streamline repeated workflows.

Design Reflection

Redesign focused on

- restoring user control
- reducing friction
- creating clearer & more intuitive pathways

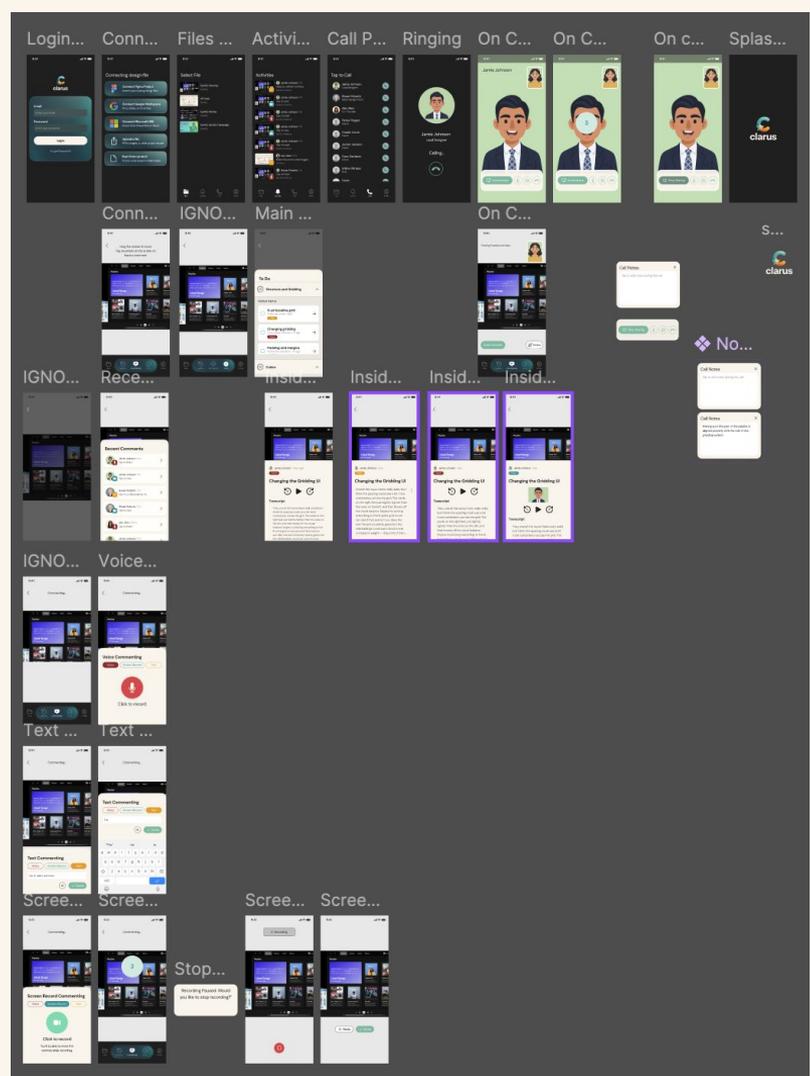
We shifted the experience from one where users frequently felt

- stuck
- uncertain
- at risk of losing work

To one where actions felt

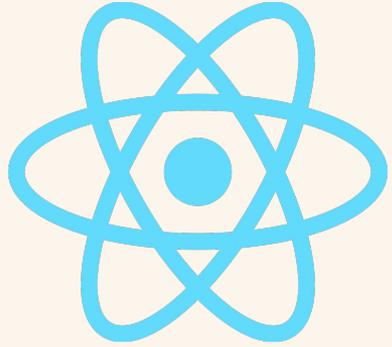
- safer
- transparent
- predictable

Overall, the revised design brought Clarus closer to its **goal of enabling fast, expressive collaboration** without overwhelming users.



Prototype Implementations

Tools Used



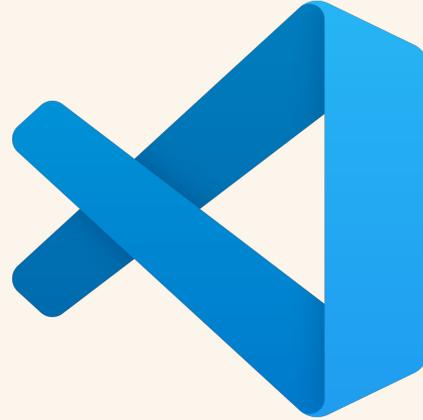
React Native

Cross functional language used to code mobile apps



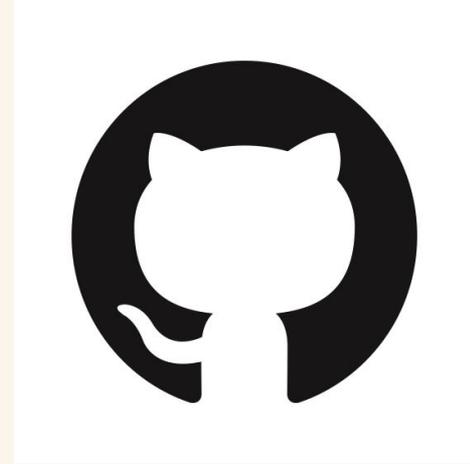
Expo

Tool used to test and simulate mobile devices



VSCode

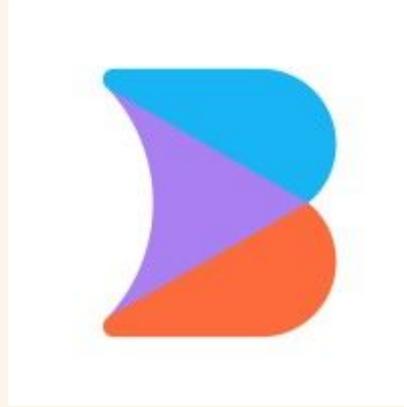
Code editor and IDE used



Github

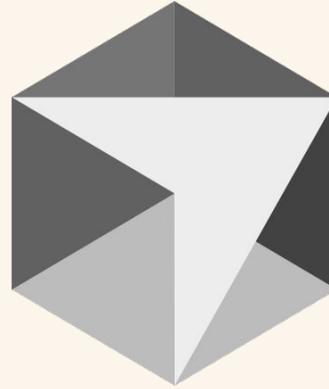
Platform used to share code and collaborate through team

AI Tools Used



Builder.io

To help convert
Figma design to
HTML code.



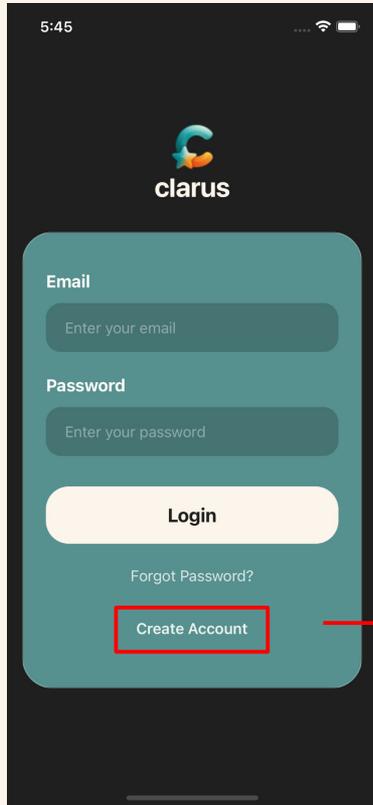
Cursor

Adding
functionality and
helping with bugs

Used for fast development and implementing complex features which we might struggle to implement ourselves (voice and screen recording text comments, transcription, etc.)

Implemented Features – Authentication

Login Flow



5:45

clarus

Email

Enter your email

Password

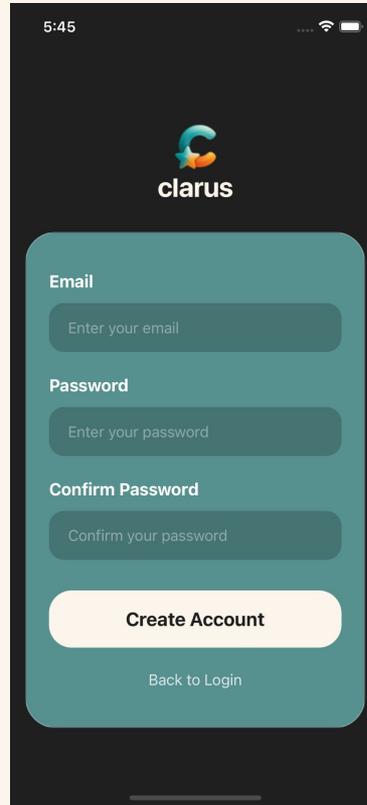
Enter your password

Login

Forgot Password?

Create Account

signup flow
design pattern



5:45

clarus

Email

Enter your email

Password

Enter your password

Confirm Password

Confirm your password

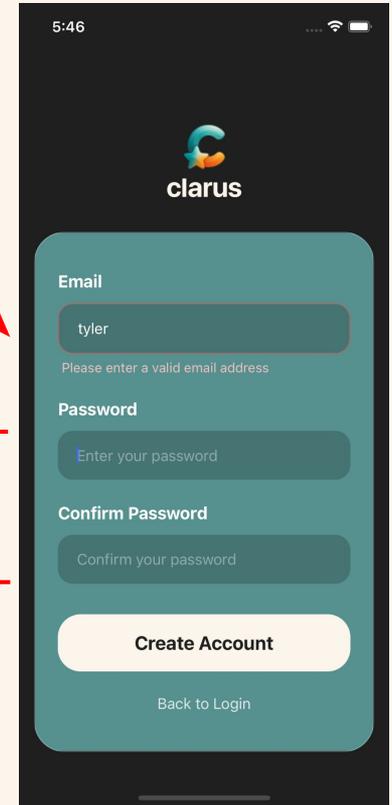
Create Account

Back to Login

email
formatting
validation

password
matching

Account Creation



5:46

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Email

tyler

Please enter a valid email address

Password

Enter your password

Confirm Password

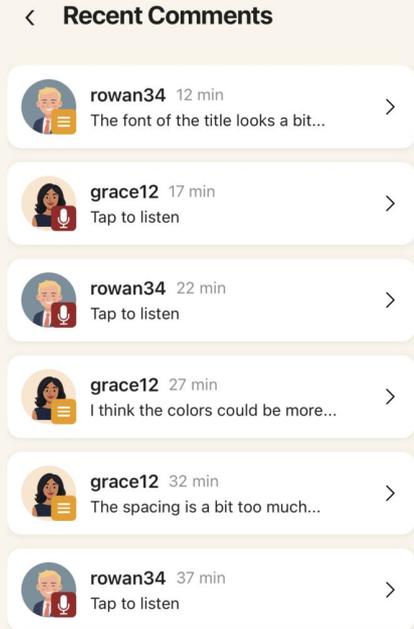
Confirm your password

Create Account

Back to Login

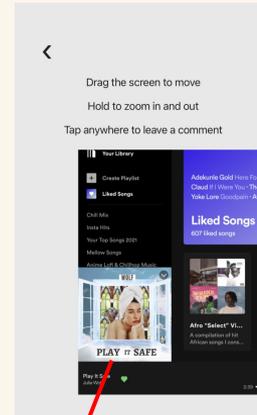
Implemented Features – Commenting Flow

Comments by Designers (hard coded)

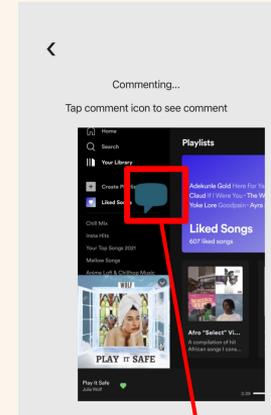


Comments by designers are hard coded into a Supabase database and are added to recent comments

Commenting Functionality



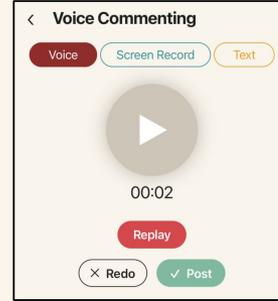
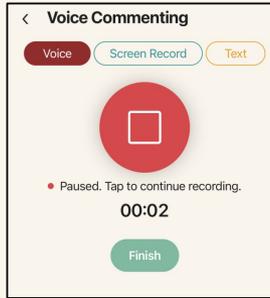
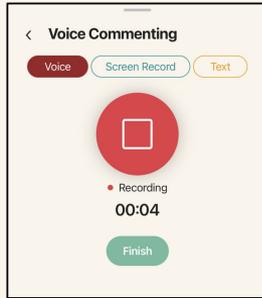
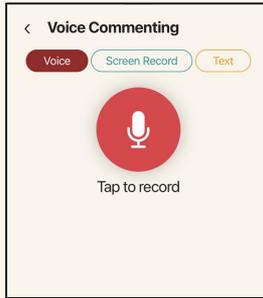
Can zoom in and drag on mockups



Leaves a blue comment icon where desired

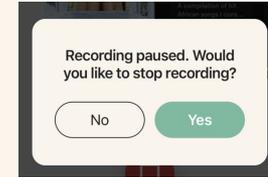
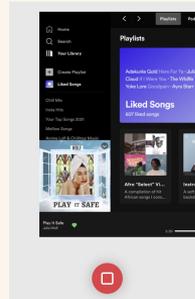
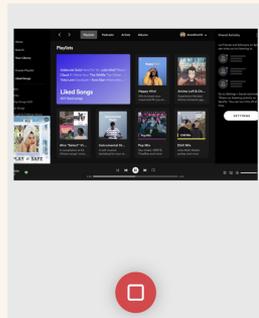
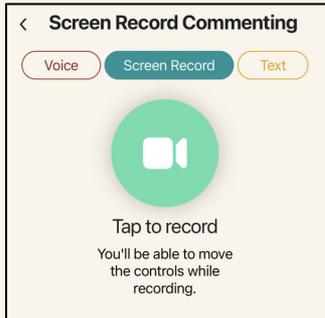
Implemented Features – Types of Comments

Voice



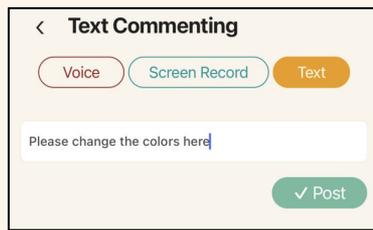
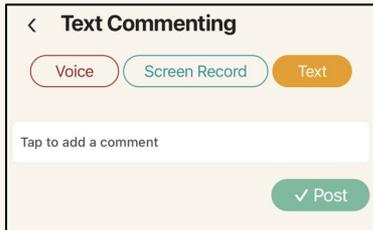
Voice record a comment, pause while recording, and replay/redo/post the comment

Screen Record



Screen record a comment, pause and restart while recording, and redo/post the comment. Zoom in and drag prototype while recording.

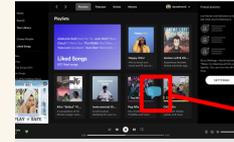
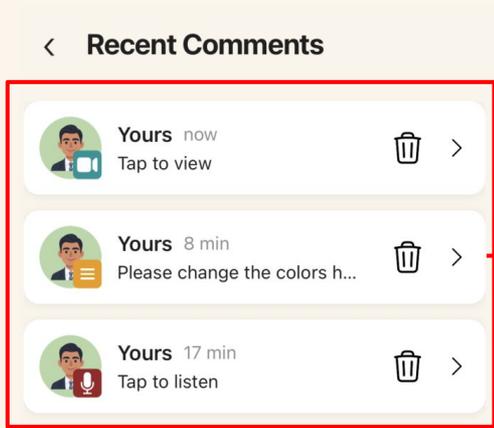
Text



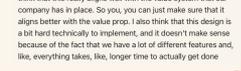
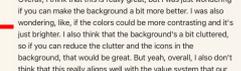
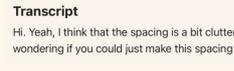
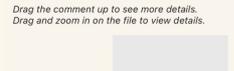
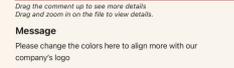
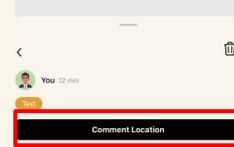
Post or delete a text comment

Implemented Features – Viewing Comments

When a comment is posted, users are directly taken to the recent comments page. They can delete their own comments and also click on them to go to an individual comment.



Click on comment location to view exactly where the comment was added (icon becomes bigger and brighter)



Click to play audio or video

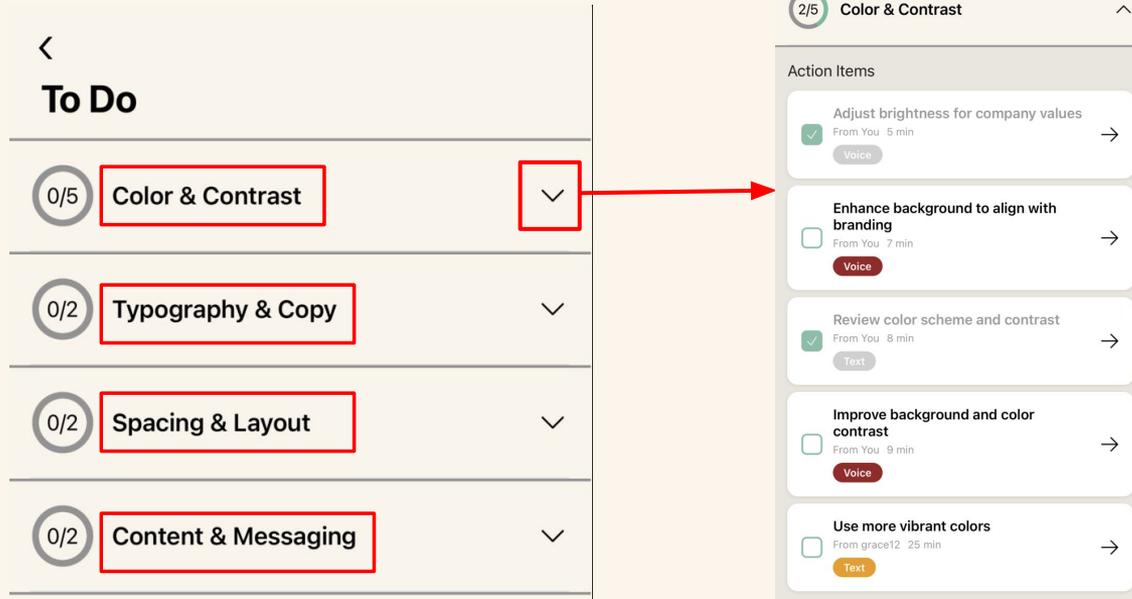
Audio is transcribed using AppliedAI API. Scrollable bar added to transcript

Click on the video to view in full screen.

Transcript
Hi. Yeah, I think that the spacing is a bit cluttered here, so I was wondering if you could just make this spacing a bit better.

Implemented Features – AI To Dos

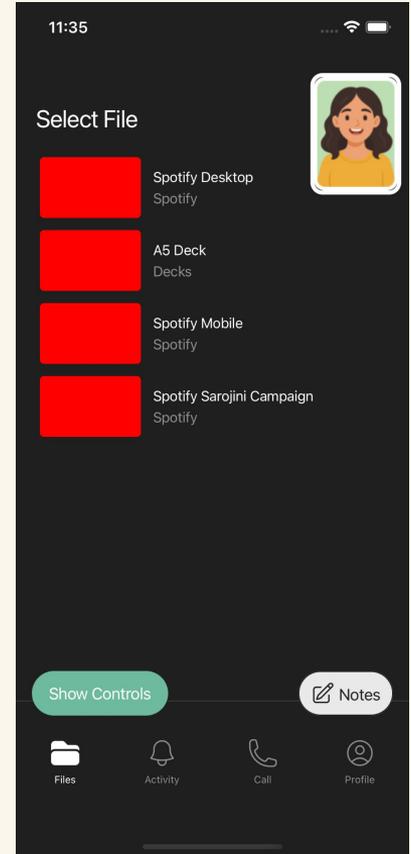
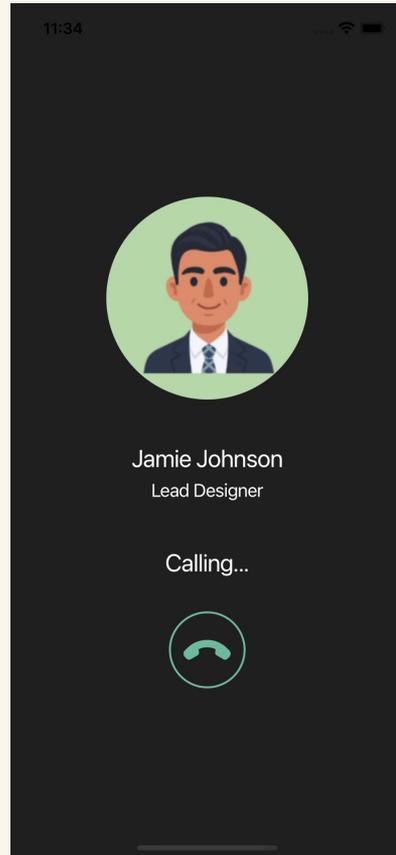
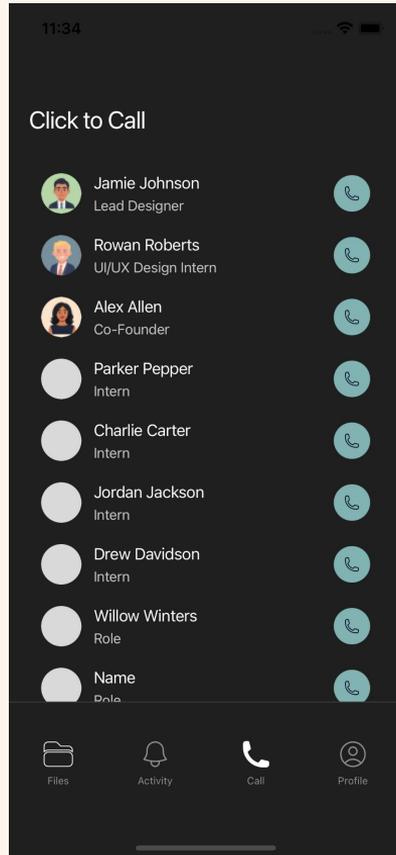
Add comments to todo categories based on the content. This is done using the OpenAI API and monitoring the database for updates.



All comments are added as action items from the OpenAI API.

Clicking on action items opens the comment and items can be marked as done by clicking the checkbox.

Implemented Features – Video Calling



Simulated Features



Hard Coded Features (Forced Choice Experience)

- **Pre-written comments by designers**
 - Would require **live social networks** (increased complexity and limits testing)
- **Users profile image and username**
- **File (spotify file)**
 - Does **not support uploading files or multiple files** (all link to spotify Figma)

Wizard-of-Oz Features

- Simulated calling in complex task
 - Avoid connecting to mobile data (**privacy concerns and complex**)
 - Allow testing at all times (**don't need another person logged in to app**)



Unimplemented Features

Finishing Task Flows:

- **HEs** and more in depth **testing of moderate task** functionality
- Integrate **live video support for calling**

Extensions:

- Supporting **multiple files** and **uploading files**
- Adding **“About clarus” page** and **profile customization**
- **Persisting comments** and **link usernames** instead of hard coding -> **deprioritized**

Integration:

- Combine both repos into one and **connect the features of the two repos**
- Polish **UI changes** and **task flows**

Timeline and Plans on Finishing

Sunday 11/23

**Finish Independent Tasks
and Begin Integration**

Tyler: Complex Task Flow

Siya: Combine Both Repos
Into One and Moderate Task
Flow

Wednesday 11/26

Finish Integration

Avey: Integrate files and
commenting + saving call
notes

Candace: Recent page

Thursday 11/27

Polishing

Candace: Polish + start
enabling multiple files

Avey: Polish/debugging

Sunday 11/31

Extensions

Siya: Finish support for
enabling multiple files

Candace: Start making
"About Clarus Page" and
profile customizations

Wednesday 12/3

Extensions

Siya: Polish and record
demo

Avey: "About Clarus Page"
and profile customizations

Thursday 12/3

Polish and Debug

After Expo

**CS 147L Requirements and
Persisting Comments**



Issues and Questions

Integration

- Two repos need to be **merged into one**, which may cause **GitHub conflicts**
- Still need to implement some **core features for completed task flows** (adds **technical complexity and roadblocks** may emerge)

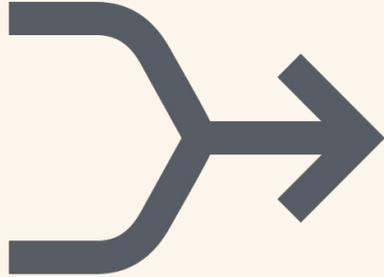
Extensions

- Adding **multiple-file support and uploads requires extra work**, including converting the Figma file into a variable
- **Persisting comments after logout** adds complexity and **isn't essential for the user experience**

Testing and Validation

- Need to **test and improve on backup flows** for API/database failures
- Finalize and **polish visual design**

Issues and Questions



Integration

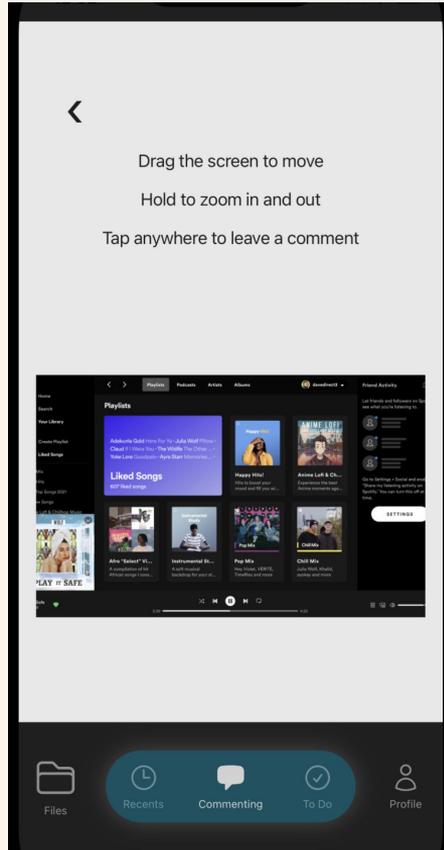
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Testing and Validation

- Need to **test and improve on backup flows** for API/database failures

High Fi Demo

Simple Task



Luma Video (Better quality)

Drive Video