# Executive Summary

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## Overview

Shared Interests is a web application for anonymously trading favorites (such as songs, books, thoughts, poetry). For the sake of the MVP, it centers on music: you submit a favorite song with a short note, which gets sent off to other random users, and you receive songs from others in return. The experience is, by design, small but hopefully special.

The shipped MVP includes:

- A Radio Station that queues up unlistened tracks, potentially with a short personal note from the sender
- A Submit flow for sharing a track + selecting your favorite track snippet + sharing an optional note
- An Inbox/chatroom to reply privately to a sender's note
- A daily delivery system that refills everyone's song queue from the global pool

The primary frameworks used to build the application include **TypeScript, Next.js App Router, React, GraphQL, Prisma, and PostgreSQL**. Authentication uses **Auth.js (NextAuth)** with email magic links or credentials. Deployment runs on **Vercel** with **Neon Postgres**.

## Target Users

This application is built keeping in mind people who:

1. are seeking deeper, more meaningful digital interaction
2. are feeling alienated by typical social platforms and craving connection
3. are looking to freely express their love for their favorite things (only music for now)
4. want small, sincere moments online rather than feeds

## Value

In a world dominated by self-promotion and filtered interaction, Shared Interests offers a place where people can be vulnerable, nostalgic, and most importantly, genuine (and find others who can appreciate that). The app builds micro-moments of connection around honest thoughts and personal interests. It can also serve as a tool for subtle journaling and quick discovery.

# Functionality

## 1. Navigation & Pages

- **Home**: Displays login/sign up options, app title, basic navigation options
- **About**: Product story; responsive layout; relevant graphic
- **Discover**: Choose a category (only Music enabled for now)
- **Submit**: Choose a category to submit an "interest" in (only Music for now). "Next" activates and routes to the music submission flow
- **Radio**: Queue of songs shared by other users, playback controls, and a note overlay that shows the sender's note

## 2. Submissions (For Music Only)

- Users submit a track + optional personal note
- Metadata captured: track title, artist, artwork, preview URL
- Optional 30s snippet selection via a custom oscilloscope waveform (with start/end handles)
- Submissions become part of the global pool used for anonymous delivery to others

## 3. Radio Station

- Where users view songs submitted by others — random queue is selected
- Playback is limited to the selected snippet window; an item is marked listened after ~5 seconds of active play
- When the queue is empty, the page shows next availability (24-hour cadence)

## 4. Seeding & Daily Replenishment

- New users are immediately seeded with 3 random songs from existing submissions
- A daily fanout job (Vercel Cron) replenishes users who have 0 unlistened items
- A session callback also backfills on login if a user somehow has none (as a safety net)

## 5. Inbox & Replies

- From a radio delivery, users can send a private reply (which opens a one-to-one conversation in Inbox)
- Unread counts surface in navigation (badged on Inbox; unlistened count badged on Music in Discover)

## 6. Identity & Privacy

- No public profiles or follower graphs
- Sender identity is reduced to a username; broader network is anonymous
- All back-and-forth happens in private threads. There are no reactions/likes in the MVP (future feature)
- Minimal moderation right now (reporting pipeline planned…)

# Tech Stack

**Frontend**
- Next.js (App Router) + React + TypeScript
- Minimal client state with useState/useEffect
- Styling via plain CSS + utility-style classes

**Backend**
- Node.js on Vercel serverless functions (critical routes use runtime = 'nodejs' for Prisma)
- GraphQL API at /api/graphql (client uses graphql-request)
- NextAuth.js (Email + Credentials) for authentication
- Nodemailer (SMTP) for magic-link/verification emails
- Vercel Cron for daily song fanout

**Database**

- **PostgreSQL (Neon)** with **Prisma ORM**
  - Core models: User, Submission, Delivery, Conversation, Message

**Deployment & Ops**
- Vercel for hosting and CI/CD (preview + production environments)
- Build step runs Prisma Generate + Migrate Deploy before next build
- Prisma Studio for production inspection (pointed at the prod DATABASE_URL)

# User Interviews Report

# User Interviews Report

## Pre-Design Interviews

### Summary

I interviewed 2 potential users for the application. We discussed their current process of how they found their current favorite things and what they would like to see in an application designed for that purpose. Algorithmic recommendation and random chance (like happening to hear a song at a cafe..) seemed to be a common theme in how favorite music was discovered. All of the users expressed appreciation for the feature of items being shared randomly.

### Unique insights from users:

- ❖ Joyce: Highlighted the need for more intentional digital connection, dissatisfaction with current social media
- ❖ Sonya: Pointed out that there are many song sharing apps, most of which are focused on helping *you* find *your* favorite (via algorithms). She thought it would be interesting if the focus of the application was about learning about stranger's favorites, rather than just about your own.

## Midway Interviews

### Summary

I interviewed 2 potential users for the application again. We discussed the current design of the application and the finalized feature list.

### Unique insights from users:

- ❖ Hamida:
  - ➢ "The design is very clean."
  - ➢ "I like the artwork on the radio station"
  - ➢ Was on the fence about the color choice: "I feel like it's too red, like it makes it harder to look at. But I can see how it would make someone more interested in learning what it is…like it'd be good for marketing"
  - ➢ liked the sharing/discovery ui, liked the snippet selection feature

- ❖ Hanien:
  - ➢ "I like how simple it looks, I don't like when websites are complicated"
  - ➢ "I really like that you're adding an inbox feature…on most sites, that's the feature I probably use the most"
  - ➢ Also liked the snippet selection feature: "Whenever I send songs to people, I always wish I could just send a specific part since the beginning might make them lose interest."
  - ➢ Was also not sure about the color choice: "It's not something I would've personally thought to choose, like I feel red is very random. But it's not bad."

# Final Interviews

## Summary

I interviewed 2 users for the application. I observed how they used the application (no verbal interference), and asked for their opinions afterward. Bold text = key insights

## Unique insights from users:

- ❖ Leena:
  - ➢ Account creation seemed seamless, no struggle there
  - ➢ On the music page, she played all the songs first without really stopping for the notes. Went back one by one after reading notes
  - ➢ On submit page, she had a difficult time locating the song she wanted
    - ■ Search feature could be improved
  - ➢ On the snippet selection part, she asked, "Does it not play the full song when you're trying to pick the snippet? It's not playing the specific part of the song I want to choose." To which I explained unfortunately not and that's a planned future feature. She replied, "Ah that sucks, I'll have to choose a different song then" → **providing full song is important to users**
  - ➢ **"Everything is good but it would be nice if I can reread what I wrote after sending it. Like you should make a section where people can see their sent reviews."**
- ❖ Hanien:
  - ➢ Account creation was also seamless here
  - ➢ Took her time reading the notes as the music played: "I really like these notes"
  - ➢ Replied to some of the notes, one was to my account. I replied back without telling her, and, she immediately went to the inbox page after seeing the notification badge:

- ■ "I really like this inbox page. I think it's one of my favorite features"
- ➢ On the Submit Music page, she had no trouble finding the song she wanted to share
- ➢ There was some struggle learning how the snippet picker worked (finding the end/start picker)
- ➢ Favorite page was About page because of the gif
- ➢ **Felt there was a stark change when submitting → "The black screen is too strong compared to the red it was just at"**
- ➢ "I would totally abuse the **thought page. I wish you had it, you should definitely add it next"**
- ➢ Liked font, felt yellow was a nice contrast to the red. Still mixed feelings about the red:
  - ■ "The screen is quite bright"
- ➢ "Seems like something that would be on "The Button" (an interactive/interesting website generator)---it's artsy niche, interesting "
- ➢ "On login page, make the user and password text yellow and make the login section bigger in general"
  - ■ Liked the art on login page, interesting/strong lighting, two people "sharing interests"
- ➢ "Its like one of those sites you want to spend more time on, but there's not much else to do"
  - ■ Would be solved once other Interests are added (thoughts/books/poetry)

# Final Thoughts + Future Features

- - Improve search feature on /submit page
- - **Definitely add a Connect to Spotify feature** so users can get access to full songs instead of apple music previews (just needed for MVP)
- - Rethinking color design
  - - Potentially change primary color from bright red to more muted red → need to have more interviews to confirm users want this change
  - - Definitely change the submission success page (after submitting a song) from black to something else (maybe dark red?)
- - **Add more security/moderation features**
  - - Although no one brought this up during the interviews, the current site has no protection against trolls/malicious attempts
  - - Add block/report button on /inbox page

- Add more to the discovery page. Based on the interviews, it seems like the next most wanted page would be the **Thoughts page**
- **Add area for users to view what they've sent in/look back at their notes**
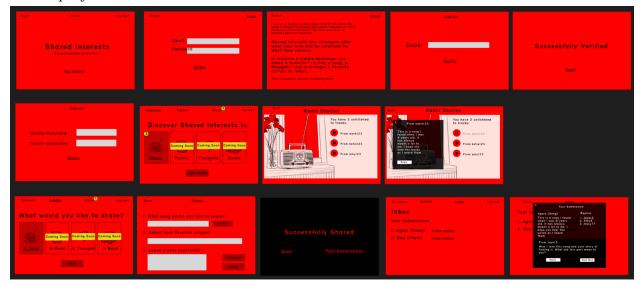
# Design

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## Design Constraints

- Going for something simple, clean, artsy
- Each "interest" on the /Discover page should lead to an experience
    - Like "Radio Station" for music interest
- Everything is very basic until you get to an experience → surprise factor
- Thoughtful, relevant art everywhere
    - Style: sketchy/not fully rendered (helpful because of time constraints + also adds character to the site)
- Stick to color theme: Red (#FF0000), Yellow (#EBD71E), Dark Red (#AB0000), White, black
- For inbox, I want a vintage/2000s chatroom theme

## Original Figma Design

Figma link:
https://www.figma.com/design/nT3ZnNFgE9zcjzKX7GyQQ0/Shared-Interests?node-id=0-1&p=f&t=O3pWjzMSJvB60IEV-0

# Original Art

After drawing the images, I turned them into gifs by multiplying the original sketch layer. Final products: