

Project Vibe Match: Comprehensive Project Plan

1. Executive Summary

Project Vibe Match is a next-generation social discovery platform designed to prioritize authentic connection over superficial swiping. By leveraging unique interactive compatibility tests and a progressive reveal mechanic, the platform aims to foster deeper, "vibe-based" relationships within a secure, verified community.

2. User Experience (UX) Strategy

Our core UX philosophy centers on gamified compatibility and gradual intimacy.

2.1. The "Aux Cord" Test

- **Concept:** A musical compatibility check acting as an initial icebreaker.
- **Mechanic:** Users sync their music libraries (e.g., Spotify, Apple Music). The system compares listening habits, top genres, and "guilty pleasures."
- **Interaction:** Users are presented with a "Pass the Aux" scenario where they judge or jam to a potential match's playlist before seeing their profile.

2.2. Meme Mood Board

- **Concept:** Humor as a proxy for personality compatibility.
- **Mechanic:** Users curate a dynamic board of memes or react to a daily feed of trending content.
- **Interaction:** Matching algorithm weighs shared humor styles (e.g., surreal, wholesome, dark) heavily. Profiles feature a "Meme DNA" section.

2.3. "Slow Fade" Reveal

- **Concept:** De-emphasizing physical appearance initially to focus on conversation and shared interests.
- **Mechanic:** Profile photos start blurred or obscured by artistic filters.
- **Progression:** As users exchange messages and interact, the photos progressively unblur. High-quality conversation unlocks visual clarity, rewarding engagement.

3. Technical Architecture

3.1. Tech Stack

- **Frontend (Mobile):** **React Native** with **Expo**, chosen for rapid cross-platform development (iOS/Android) and over-the-air updates.

- **Backend Runtime:** **Node.js**. efficient for handling concurrent connections and real-time features.
- **Database (Relational):** **PostgreSQL**. Robust data integrity for user profiles, relational graphs, and transaction logs.
- **Caching & Session Store:** **Redis**. High-performance caching for session management and real-time leaderboards/status.

3.2. Real-Time Infrastructure

- **WebSockets:** **Socket.io**. Powering the instant messaging experience, live "Aux Cord" listening parties, and real-time notification delivery.

4. Backend Logic & Algorithms

4.1. The Matching Engine: Weighted Tag Overlap

- **Core Algorithm:** A sophisticated matching system that goes beyond simple keyword matching.
- **Weighting:** Tags are assigned weights based on user intensity (e.g., "Casual Listener" vs. "Stan").
- **Overlap Calculation:** The system calculates a "Vibe Score" based on the weighted intersection of interests, humor tags (from Meme Mood Board), and music metadata.

5. Trust & Safety

Safety is paramount, specifically targeting a high-trust user base.

5.1. Verification

- **Edu-ID Requirement:** **.edu Email Verification**. Restricts initial access to college students and alumni to create a trusted network baseline.

5.2. Community Moderation

- **Community Jury:** A distributed moderation system where high-reputation users can vote on flagged content or disputes, democratizing community standards.

5.3. Privacy

- **Ephemeral Chat:** Messages in the early stages of matching are ephemeral by default, disappearing after a set time or once the conversation ends, reducing the risk of data leaks and encouraging spontaneous, low-pressure communication.