

## # Project Technology & Feature List

This document outlines the core technologies and application features based on the provided project files, with

### ### Core Technologies (The "Engine")

This is the underlying stack and tooling used to build and run your application.

\* \*\*Project Structure:\*\* Monorepo managed with \*\*pnpm\*\* and \*\*Turborepo\*\*.

\* \*\*Runtimes:\*\*

\* \*\*Node.js:\*\* The primary runtime for the entire project.

\* \*\*Bun:\*\* Used as the runtime for the dedicated backend service.

\* \*\*Languages:\*\*

\* \*\*TypeScript:\*\* The primary language for the entire monorepo.

\* \*\*SQL:\*\* Used for database functions and queries.

\* \*\*Frameworks:\*\*

\* \*\*Next.js (v15):\*\* The core React framework for the main web application, using \*\*Turborepo\*\* (and Turbopack).

\* \*\*Vite:\*\* Used as the build tool for the separate 'backend' service.

\* \*\*UI & Styling:\*\*

\* \*\*React (v19):\*\* The foundational UI library.

\* \*\*Tailwind CSS:\*\* The utility-first CSS framework for all styling.

\* \*\*Radix UI:\*\* Used for accessible, unstyled UI primitives (e.g., 'Dialog', 'Select', 'Dropdown').

\* \*\*shadcn/ui Utilities:\*\* The project uses utilities common to 'shadcn/ui' like 'class-variance-authority', 'clsx', and 'deprecate'.

\* \*\*Database & Backend-as-a-Service (BaaS):\*\*

\* \*\*Firebase:\*\* Used as the core BaaS for database, authentication, and backend services (replacing Supabase).

\* \*\*Prisma:\*\* The primary ORM for database access and schema management.

\* \*\*Firebase Cloud Functions:\*\* Serverless functions for AI tasks, search, and other backend logic (replacing Cloud Functions).

\* \*\*Authentication:\*\* \*\*Clerk\*\* is the primary service for user authentication and management.

\* \*\*Payments & Monetization:\*\* \*\*Stripe\*\* is used for all payments, including subscriptions and creator payouts.

\* \*\*File Storage:\*\* \*\*AWS S3\*\* (or a compatible service like \*\*Cloudflare R2\*\*) is used for file and media upload.

\* \*\*AI & Embeddings:\*\* \*\*OpenAI\*\* client is used for AI features, including generating vector embeddings for semantic search.

\* \*\*State Management:\*\*

\* \*\*Jotai:\*\* Used for global client-side state management.

\* \*\*TanStack Query:\*\* Used for server-side state, caching, and data fetching.

\* \*\*In-App Editors:\*\*

\* \*\*Monaco Editor:\*\* Provides a rich, VS Code-like text editor in the browser.

\* \*\*CodeSandbox Sandpack:\*\* Used to create live, runnable code sandboxes.

\* \*\*Analytics:\*\*

\* \*\*Amplitude:\*\* For product analytics.

\* \*\*PostHog:\*\* For product analytics and session recording.

\* \*\*Transactional Email:\*\* \*\*Resend\*\* and \*\*React Email\*\* are used for sending emails.

\* \*\*Testing:\*\* \*\*Vitest\*\* is the framework used for unit and integration tests.

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### ### Application Features (The "Experience")

This is what users can actually \*do\* with your application, based on the file list.

\* \*\*Component Marketplace (Core Feature):\*\*

\* \*\*Browse Components:\*\* Users can browse components listed on the main page, by category/collection, or search.

\* \*\*Component Pages:\*\* Each component has a dedicated public page showing its details and demos.

\* \*\*Interactive Previews:\*\* Users can view interactive component demos.

\* \*\*User Profile Pages:\*\* Public-facing pages that list all components and bundles published by a specific user.

\* \*\*Creator Studio & Publishing:\*\*