

1. Core Environment & Database

Category	Technology / Tool	Version	Source / Notes
Runtime	Node.js	v24.15.0	System Environment (v18+ required)
Database	MongoDB	Local Service	Service running on mongodb://127.0.0.1:27017
ODM	Mongoose	^8.10.1	server/package.json

2. Frontend Tech Stack

Category	Library / Tool	Version
UI Library	React	^19.2.0
DOM Renderer	React DOM	^19.2.0
Routing	React Router DOM	^7.2.0
Language	TypeScript	^5.8.3
Build Tool / Dev Server	Vite	^8.2.0
Vite React Plugin	@vitejs/plugin-react	^5.2.0
CSS Framework	Tailwind CSS	^4.2.1
Tailwind Vite Plugin	@tailwindcss/vite	^4.2.1
UI Components	Radix UI (@radix-ui/react-*)	^1.x – ^2.x
Icons	Lucide React	^0.575.0
Data Fetching / Cache	TanStack React Query	^5.101.1
Form Management	React Hook Form	^7.71.2
Schema Validation	Zod	^3.24.2
Form Validation Resolver	@hookform/resolvers	^5.2.2
Charts / Analytics	Recharts	^2.15.4
Toast Notifications	Sonner	^2.0.7
Carousel UI	Embla Carousel React	^8.6.0

Category	Library / Tool	Version
Date Utility	Date-fns	^4.1.0
Styling Utilities	clsx / tailwind-merge / cva	^2.1.1 / ^3.5.0 / ^0.7.1

3. Backend Tech

Category	Library / Tool	Version
Server Framework	Express	^4.21.2
Language	TypeScript	^5.8.2
Dev Execution & Watcher	tsx	^4.19.3
Database ODM	Mongoose	^8.10.1
Authentication	JSON Web Token (jsonwebtoken)	^9.0.2
Password Hashing	BcryptJS (bcryptjs)	^3.0.2
Security Middleware	CORS (cors)	^2.8.5
HTTP Logger	Morgan (morgan)	^1.10.0
Environment Loader	Dotenv (dotenv)	^16.4.7

4. Root Workspace & Tooling

Tool	Version	Purpose
Concurrently	^9.1.2	Runs backend & frontend dev servers simultaneously
ESLint	^9.32.0	Code linting
Prettier	^3.7.3	Code formatting