

Technology Stack Analysis

Frontend (Mobile Application)

- **Framework:** Flutter (SDK ^3.8.1)
- **Language:** Dart
- **State Management:** Provider
- **Navigation:** go_router
- **Styling/UI:**
 - velocity_x (Utility-first UI)
 - flutter_tailwind_css_colors
 - pininput (For OTP/PIN inputs)
 - cached_network_image
- **Real-time Communication:** socket_io_client
- **Maps & Location:** google_maps_flutter, geolocator, maps_toolkit
- **Backend Services:**
 - firebase_core
 - firebase_messaging (Push Notifications)
 - dio (HTTP Client)
- **Utilities:**
 - intl (Localization/Internationalization)
 - shared_preferences (Local Storage)
 - permission_handler

Backend (Server)

- **Runtime:** Node.js
- **Framework:** Express.js
- **Language:** TypeScript
- **Database:** MongoDB (via Mongoose)
- **Real-time Communication:** Socket.io
- **Authentication:**
 - JSON Web Tokens (JWT)
 - bcryptjs (Password hashing)
- **Cloud Services:**
 - Firebase Admin SDK
 - Google APIs
- **Mailing:** Nodemailer
- **Security & Utilities:**
 - cors
 - dotenv
 - rate-limiter-flexible
 - lru-cache