

KTS App Summary (Repo-Evidenced)

What it is

KTS (ClassBridge) is a React Native school management app built with Expo and Supabase. It unifies academics, operations, and communication for school staff and students.

Who it's for

Primary persona (explicit single persona): Not found in repo.

Evidence-backed users: super admin, admin/teacher, student, and driver roles.

What it does

- Role/capability-based access and route protection across app screens.
- Attendance, timetable, syllabus, tasks, assessments, and progress tracking.
- Fees and finance workflows, including invoices and finance module screens.
- Announcements and push notifications via Supabase functions.
- Learning resources support (PDF/video) and AI-assisted test generation/chatbot.
- Transport operations: buses, drivers, assignments, and live bus tracking.

How it works (compact architecture)

- UI layer: Expo Router routes in `app/*` map to feature screens in `src/features/*`.
- App shell: `app/_layout.tsx` wires `QueryClient`, `Auth`, `Theme`, `notifications`, and `error boundary`.
- Data layer: `hooks/services` call `src/lib/supabase.ts`; `React Query` handles `cache/retries`.
- Backend: Supabase Postgres + RLS with migrations in `supabase/migrations/*.sql`.
- Server logic: Edge Functions in `supabase/functions/*` (tasks, notifications, transport).
- Flow: sign in -> profile lookup -> capability-gated navigation -> table queries/mutations -> optional notification function calls

How to run (minimal)

1. Install Node.js 18+ and npm.
2. Copy `.env.example` to `.env` and set `EXPO_PUBLIC_SUPABASE_URL` / `EXPO_PUBLIC_SUPABASE_ANON_KEY`.
3. Run: `npm install`
4. Run: `npm run env:check`
5. Run: `npm run dev`
6. Optional: `npm run ios` or `npm run android`

Web run script (`npm run web`): Not found in repo package scripts.