

## What It Is

TestKra is a React Native + Expo mobile app for practice test series, timed mock exams, and performance tracking. It supports auth, cloud sync, question library management, and Android Pro purchases with backend verification.

## Who It's For

- Primary user/persona: Not found in repo.
- Inferred from test categories and catalog data: students preparing for UPSC, SSC, Banking, Railways, and State PCS exams.

## What It Does

- Sign in with email/password or Google OAuth using Supabase Auth.
- Browse/search/filter test series and gate premium access through Pro status.
- Run timed tests with question palette, mark-for-review, pause/resume, and timeout auto-submit.
- Calculate scores (+2 correct, -0.66 incorrect), then show result breakdown and solution review entry points.
- Save questions as saved/wrong/revision items, with local persistence and cloud sync.
- Track progress with charts for score trend, subject accuracy, study time, coverage, and weak topics.
- Process Android in-app purchases and grant Pro only after server-side Google Play verification.

## How It Works (Repo Evidence)

- UI: `src/screens/\*` + reusable `src/components/\*`; navigation in `src/navigation/AppNavigator.tsx`; theming in `src/contexts/ThemeContext.tsx`.
- State: Zustand stores (`authStore`, `testStore`, `toastStore`) persisted via AsyncStorage.
- Services: Supabase client in `src/lib/supabase.ts` ; runtime env validation in `src/config/runtimeConfig.ts` .
- Data model: Supabase tables include `profiles`, `tests`, `questions`, `attempts`, `bookmarks`, `test\_progress`, and `purchase\_receipts` .
- Data flow: app hydrates stores -> session check + sync -> screen fetches/tests/actions -> optimistic local updates -> Supabase writes/upserts.
- Payments flow: `PricingScreen` -> `googlePlayBilling.ts` -> Edge Function `verify-google-play-purchase` -> Google Play API verify -> receipt upsert + `profiles.is\_pro=true` .

## How To Run (Minimal)

- `npm install`
- Create ` `.env` from ` `.env.example` , then set: `EXPO\_PUBLIC\_SUPABASE\_URL` and `EXPO\_PUBLIC\_SUPABASE\_ANON\_KEY` (required).
- Optional envs: `EXPO\_PUBLIC\_ANDROID\_BILLING\_PRODUCT\_IDS` , `EXPO\_PUBLIC\_ENABLE\_MOCK\_FALLBACK` .
- `npm run start` (or `npm run android` / `npm run ios` ).
- Backend billing/release setup details are in `docs/release-smoke-checklist.md` (deploy edge function + migrations).
- Complete end-to-end local backend provisioning guide: Not found in repo.