

# ZimEstimate - App Summary

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## What It Is

ZimEstimate is a Next.js web app for construction cost estimation and project management in the Zimbabwean market. It helps users build bills of quantities (BOQs), track costs, and manage construction projects.

## Who It's For

Primary users are Zimbabwean homebuilders or small contractors managing residential construction budgets, materials, and timelines.

## What It Does

- Build BOQs manually and organize line items by category.
- Analyze floor plan uploads with Gemini vision to extract rooms and measurements (AI takeoff).
- Manage projects with BOQ, tracking, documents, planning, and usage tabs.
- Track purchases, actual vs budgeted costs, and material usage.
- Browse a marketplace of suppliers and materials with price comparisons.
- Export BOQs to PDF and other formats (per PRD export options).

## How It Works

- UI: Next.js App Router pages in `src/app` with reusable UI in `src/components`.
- Data: Supabase client in `src/lib/supabase.ts`; project CRUD in `src/lib/services/projects.ts`.
- DB: Tables and decisions documented in `PRD.md` (projects, boq\_items, materials, suppliers, etc.).
- Vision: `POST /api/vision/analyze` calls `src/lib/vision/gemini-client.ts` (Gemini).
- Export: `src/lib/pdf-export.ts` generates BOQ PDFs with jsPDF.

## How To Run

- Create `.env.local` with `NEXT_PUBLIC_SUPABASE_URL` and `NEXT_PUBLIC_SUPABASE_ANON_KEY` (see `.env.local.example`).
- Optional: set `GOOGLE_GEMINI_API_KEY` for AI vision (used by `/api/vision/analyze`).
- Run `npm run dev` (`README.md`).
- Open `http://localhost:3000` in a browser (`README.md`).
- Dependency install command: Not found in repo.