

Project Brief: Student Directory Lite

1. Overview

A small web application that lists student profiles in a searchable directory with a tiny admin panel for adding and updating entries. Scope is intentionally minimal while covering the full toolchain: React + Vite, design aids, AI assistants, database + auth, one automation, and Vercel deployment.

2. Tech Stack

- **Frontend:** Vite + React
 - **Design aids:** UXPilot or MagicPatterns (layout/components)
 - **AI Assist:** Cursor AI or GitHub Copilot (component scaffolding, form validation)
 - **Backend (BaaS):** Firebase (Auth + Firestore) **or** Supabase (Auth + Postgres)
 - **Automation:** Make.com **or** Zapier (webhook/DB trigger)
 - **Hosting:** Vercel (CI/CD from GitHub)
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3. Core Features

3.1 Public Directory (/)

- Grid/list of students with **name, program/major, graduation year**.
- **Search** by name; **filter** by program or grad year.
- Click a card to open a **student detail modal/page** with extended fields (bio, skills).

3.2 Admin Panel (/admin)

- **Login** required (Firebase/Supabase Auth).
- Form to **Create** a student profile and **Update** an existing one (two CRUD ops):
 - Fields: name, email, program, gradYear, bio (max 300 chars), skills (comma-separated), portfolioUrl/linkedinUrl (optional).
- Table listing existing profiles with inline edit and **Delete** action.

3.3 Data Model (minimum)

- students: { id, name, program, gradYear, bio, skills: string[], avatarUrl, portfolioUrl?, linkedinUrl?, createdAt, updatedAt(both created and updated are usually built-in a database)}
 - users handled by Auth provider.
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4. Automation (Make.com or Zapier)

- Trigger: **New student profile created** or **profile updated**.
 - Actions: Send a **welcome/confirmation email** to the student.
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5. UI & UX Requirements

- Clean, responsive directory with card layout (2–4 columns on desktop, 1–2 on mobile).
 - Use UXPilot or MagicPatterns to scaffold header, search/filter, cards, admin form/table.
 - Clear states: empty results, form validation errors, success toasts.
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6. Routes

- / — Public directory (search + filter + detail view)
 - /admin — Auth-only panel (create/update/delete)
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7. Deployment

- GitHub repo connected to Vercel for CI/CD.
 - Environment variables (Firebase/Supabase keys) stored in Vercel project settings.
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8. Deliverables

1. **GitHub repository** with README (can be generated by AI, need to have setup, env var names(not actual keys), deploy steps).
 2. **Live URL** on Vercel.
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9. Milestones

- **M1:** Scaffold Vite + React; public directory UI; seed mock data; search + filter.
 - **M2:** Auth; /admin create/update; connect DB; display live data.
 - **M3:** Delete action; automation on create/update; deploy to Vercel.
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10. Stretch Goals (Optional)

- Tag-based skill filtering with chips.
- CSV import/export of students.
- Public profile URLs: /s/:id-or-slug for sharing.