

Here's a 7-day, do-able build plan for **Item 7: “Micro-Course from SOP”** — convert any SOP/handbook into 5-minute training with quizzes, badges, and completion tracking. I'm assuming a fast stack you already know: **React (Next.js) + Firebase (Auth, Firestore, Storage, Functions)**, **Stripe** for billing, and **OpenAI** for generation.

Day 1 — Scope, Architecture, and Data Model

Goal: Freeze MVP, wire technical foundations, and create the data model.

MVP (v0)

- Upload SOP (DOCX/PDF) or paste text.
- AI → Modules (3–7), learning objectives, 3–5 MCQs per module.
- Course Builder (edit text, add/remove questions).
- Learner Mode (mobile-first), gated quizzes, 80% pass to proceed, retries.
- Progress & completion tracking, CSV export.
- Simple badge + completion certificate (PDF).
- Org → invite learners by email; roles (Owner, Admin, Learner).
- Stripe: free trial + Starter & Pro plans.

System

- Next.js (App Router) + Tailwind + shadcn/ui.
- Firebase: Auth (email link & Google), Firestore, Storage, Functions.
- OpenAI via Cloud Functions (secure API key).
- Clerk/Auth.js not needed if staying with Firebase Auth.

Collections (Firestore)

- **orgs**: { name, ownerId, stripeCustomerId, planTier }
- **users**: { uid, email, displayName, orgId, roles: ['owner'|'admin'|'learner'] }
- **courses**: { orgId, title, status: 'draft'|'published', passScore: 80, estMins, createdBy, publishedAt }
- **modules**: { courseId, index, title, contentHtml, learningObjectives: string[] }
- **questions**: { moduleId, index, stemHtml, options: string[4], correctIndex: number, rationaleHtml }
- **enrollments**: { orgId, courseId, userId, status: 'in_progress'|'completed', progress: { moduleIndex, score }, startedAt, completedAt }
- **attempts**: { userId, courseId, moduleId, questionId, selectedIndex, isCorrect, createdAt }

- `badges`: { `userId`, `courseId`, `name`, `awardedAt`, `certificateUrl` }
- `uploads`: { `orgId`, `fileUrl`, `source`: 'pdf'|'docx'|'paste', `processed`: boolean, `error?` }

Acceptance Criteria

- Repo bootstrapped, Firebase project created, envs set, data model documented.
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Day 2 — Auth, Org Onboarding, and App Shell

Goal: Auth & org flows with a clean app shell.

Build

- Firebase Auth (Email link + Google).
- First-login org creation, role assignment.
- App shell: `/app` (admin home), `/learn` (learner home).
- Sidebar: Courses, Learners, Analytics, Settings, Billing.
- Invite learners (save as `users` with `learner` role & pending invite).

Acceptance Criteria

- Can sign in/out.
 - Create org, invite a test learner, switch between admin & learner views.
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Day 3 — Upload & AI Course Generation Pipeline

Goal: Turn SOP → draft course.

Build

- File upload to Storage (`/uploads/{orgId}/{uuid}`).
- Cloud Function: `parseUpload` (pdf-parse/docx parsing). Fallback: “Paste SOP” textarea.
- Cloud Function: `generateCourse` calls OpenAI to:

- Chunk SOP into 3–7 modules (clear titles + 3–5 learning objectives each).
 - Summarize module content (~350–600 words, HTML allowed).
 - Create 3–5 MCQs/module with 4 options, correct index, and rationale.
- Persist to `courses/modules/questions`. Estimate `estMins` = reading + quiz time.

Prompt starter (server-side)

- System: “You are an instructional designer. Create concise, safety-aware micro-learning from business SOPs. Use plain language and active voice.”
- User: includes normalized text + constraints (module count, objectives, MCQ schema).

Acceptance Criteria

- Upload a sample SOP and get a populated draft course in Firestore within 60–90s.

Day 4 — Course Builder (Admin)

Goal: Edit, reorder, and publish.

Build

- Course Builder UI: edit course title, pass score, module titles, content (rich text), objectives, and questions.
- Re-generate per module (“Improve module” / “Regenerate quiz”) with diff view.
- Drag to reorder modules & questions.
- Publish toggle: `status='published'` locks structure for learners.

Acceptance Criteria

- Admin can fully edit a generated course, publish it, unpublish to fix, re-publish.

Day 5 — Learner Experience & Quiz Engine

Goal: Smooth learner flow with progress and gating.

Build

- `/learn/:courseId` → progress bar, module list; open Module View.
- Module View: read content → “Start Quiz”.
- Quiz Engine: per question screen, submit → feedback (correct/incorrect + rationale).
- Score summary; if score \geq passScore → unlock next module; record in `attempts` + update `enrollments`.
- Completion → award `badge` + generate PDF certificate via Function (Puppeteer/Playwright HTML→PDF), store in Storage, save `certificateUrl`.

Acceptance Criteria

- A test learner can complete a course and receive a downloadable certificate.
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Day 6 — Analytics, Exports, Billing, and Limits

Goal: Admin intelligence + paywall.

Build

- Analytics (admin): per course → enrollment funnel, module pass rates, tricky questions (lowest correctness), avg time to complete.
- CSV export: completions, per-learner progress.
- Stripe:
 - Tiers: **Starter** (\$29/mo): up to 3 courses, 25 active learners; **Pro** (\$79/mo): 20 courses, 250 learners; **Scale** (\$199/mo): unlimited with soft caps.
 - Webhooks → set `planTier`, enforce limits in UI & Functions.
 - Free 14-day trial.
- Email nudges (Functions + Firebase Extensions / Mailgun): invite, reminder for stalled learners, “congrats” email.

Acceptance Criteria

- Stripe checkout upgrades org; limits enforced; analytics loads within 2s on 1k attempts.
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Day 7 — QA, Security, Content, and Launch

Goal: Ship confidently.

QA Checklist

- **Security:** All OpenAI calls server-side; rules: users read own enrollment/attempts; admins read org resources; learners cannot fetch exams pre-publish. Test Firestore Rules with the Emulator.
- **Perf:** Lazy-load module content; paginate attempts.
- **Edge cases:** Empty uploads, huge PDFs, non-English text, regeneration collisions, network retries.
- **Accessibility:** Keyboard nav, focus states, ARIA labels.
- **Content:** Seed 2 sample courses (e.g., “Clinic Intake SOP”, “Retail Opening/Closing”).
- **Docs & Help:** 90-sec demo video, “How to import SOP” guide.
- **Landing page:** clear promise (“Turn SOPs into micro-training in minutes”), pricing, live demo course, CTA → free trial.
- **Support:** Intercom/HelpKit, status page stub.

Definition of Done (MVP)

- New org can sign up, upload SOP, generate/edit/publish a course, invite learners, collect completions, export CSV, charge via Stripe.