BookWhisper: PDF/EPUB to Audiobook Tool - 7-Day Development Roadmap

Day 0 Project Kick-off

- Define MVP: Single PDF/EPUB upload MP3 + web player.

- Voices: OpenAI tts-1, Coqui XTTS fallback.

- Tech Stack: FastAPI backend, React frontend, Supabase for DB/Storage/Auth.

- CI setup with GitHub Actions.

Day 1 Text Extraction

- Backend: Upload endpoint, text extraction (PDF: pymupdf, EPUB: ebooklib).

- Frontend: Drag & drop upload (react-dropzone), preview extracted text.

Day 2 TTS Pipeline

- Backend: Implement TTS engine using OpenAI or Coqui XTTS.

- Chunk text, synthesize in parallel, join with ffmpeg.

- Frontend: Poll job status, audio player for result.

Day 3 Chapter Detection & Navigation

- Detect chapters via bookmarks or regex.

- Split audio by chapter, generate playlist or use ID3 frames.

- UI: clickable chapter list.

Day 4 Smart Features

- Summarization: GPT-4o per chapter.

- Ask-the-book: QA system using pgvector + LLM.

- Translation: Detect language, offer output in target voice.

Day 5 Personalization

- Voice selection, speed adjustment, audio styles.

- Generate RSS feeds for podcast app subscriptions.

Day 6 Polish

- Supabase Auth, user library of conversions.

- PWA support, accessibility, visual polish.

Day 7 Deployment

- CI/CD: Railway backend, Vercel frontend.

- Monitoring (Sentry, Grafana), API docs.

- Promo assets: demo video, landing page.