🚀 How We Used AI at Every Step of Product Planning & SDLC – *TweetECHO*

🧠 Overview

TweetECHO is a tool built during a hackathon to help users enhance their Twitter/X presence by analyzing their existing tweets and echoing their signature writing style in future posts. From concept to deployment, we leaned heavily on AI tools to speed up development, reduce cognitive overhead, and stay focused on what really mattered—delivering a product that works.

🔍 1. Ideation & PRD Prompting

We began by drafting a rough outline of what we wanted to build. Instead of spending hours polishing a PRD from scratch, we asked ChatGPT to generate a detailed prompt that could serve as the foundation for a PRD (Product Requirements Document). This helped us clarify the scope, key features, and target audience quickly.

🌐 2. Landing Page Briefing with AI

Using the PRD output, we then asked ChatGPT to create a prompt for a marketing-style landing page brief. This brief included headline ideas, positioning, user benefits, and a suggested structure for a static page.

🎨 3. Building & Iterating the Landing Page in Lovable

We fed the landing page brief to **Lovable**, which generated a static landing page. Once we had the initial draft, we made iterative improvements using short, targeted prompts directly within Lovable. This allowed us to polish the content, layout, and tone without ever writing HTML/CSS manually.

⚖️ 4. Backend & Testing with Claude Code + Cursor

To bring TweetECHO to life, we used **Claude Code** and **Cursor (agentic mode)** to write backend logic and automated tests. These tools helped us handle routine coding tasks faster while maintaining structure and quality.

🔐 5. Authentication with Supabase + Lovable

For user authentication, we integrated **Google Sign-In** using Supabase's extension inside Lovable. This made our onboarding seamless without touching complex auth flows manually.

🧠 6. Prompt Optimization with ChatGPT for Core Logic

One of the most critical parts of TweetECHO was extracting a user's writing style from uploaded tweet content. We used **ChatGPT** to refine and iterate on the prompts that generated a consistent and usable JSON structure representing tone, syntax, emojis, and hashtags—essentially, the user's Twitter "voice".

Summary

By combining multiple AI tools at every step of the Software Development Life Cycle (SDLC), we dramatically reduced development time while improving quality and consistency. TweetECHO is more than just a product of a hackathon—it's a case study in how AI can be used as a force multiplier across ideation, design, development, and deployment.