Avalanche — Product Requirements Document (PRD)

Developer Edition | v1.0 | MAGNUS Studios

"Shop. Create. Collaborate — Intelligently."

1. Executive Summary

Avalanche is an AI-powered web and mobile platform designed to merge commerce, collaboration, and creativity into one intelligent ecosystem. Users can buy goods (like food or clothing), collaborate in project-based guilds, and discover relevant ideas or tasks through the AI Google Box — a visual, voice-enabled assistant powered by Qdrant and LangChain. It's built for a global audience, with Africa as its launch base, and emphasizes secure multi-payment options, sustainability, and community growth.

2. Vision & Mission

Vision: To create a borderless ecosystem where AI connects people, ideas, and commerce in one intuitive space. **Mission:** Empower freelancers, communities, and local businesses to collaborate, buy, and build smarter through intelligent automation and trust-based payments.

3. Target Users

- **Freelancers:** Seek work, join guilds, get paid securely. - **Local Shoppers:** Purchase goods and food easily from verified vendors. - **Guild Teams:** Form idea-based communities and collaborate on creative or tech projects. - **Small Vendors:** Gain digital exposure and reach verified buyers.

4. Core Features Overview

1. **AI Google Box** — Conversational, voice-enabled AI assistant with semantic search and task automation. 2. **Community Marketplace** — Smart product discovery based on budget and preferences. 3. **Guild Hub** — A collaboration system for creative or tech teams. 4. **Payment & Escrow** — Multi-method payment protection (Paystack, Flutterwave, Avalanche crypto). 5. **AI Transcripts** — Automatic speech-to-text logs for chats, calls, or meetings. 6. **User Dashboard** — Central control for tasks, purchases, and analytics. 7. **Community Feed** — Public updates and idea-sharing space.

5. Tech Stack

Layer	Technology
Frontend	React + Vite + Stitch UI
Backend	FastAPI (Python)
Database	Qdrant + Supabase
AI	LangChain + OpenAI (GPT, Whisper)
Payments	Paystack + Flutterwave + Avalanche
Hosting	Vercel + Render
Auth	Supabase Auth

6. System Architecture

Frontend (React + Stitch) ↓ AI Gateway (LangChain + FastAPI) ↓ Qdrant → Semantic Search Supabase → Auth & Data ↓ Payment Module → Paystack / Flutterwave / Avalanche ↓ Escrow System → Smart verification ↓ Delivery APIs → Logistics providers

7. Security & Fraud Prevention

- **KYC:** AI-assisted verification and Supabase Auth integration. - **Escrow Layer:** Funds held until user confirmation or AI delivery verification. - **Fraud Detection:** AI monitors unusual activity or repeated disputes. - **Encryption:** End-to-end for chats, logs, and transactions.

8. Development Roadmap

Phase 1 (2 months): Build AI Box, Marketplace, and Qdrant setup. **Phase 2 (1 month):** Integrate Payments and Escrow backend. **Phase 3 (1 month):** Guilds + Idea Hub development. **Phase 4 (1 month):** Add Voice and Transcript features. **Phase 5 (Launch):** Go live in Nigeria, expand regionally.

9. Success Metrics

- 10,000+ daily active users in 6 months. - 95%+ transaction success rate. - Average AI interactions per session: 3+. - Guild retention rate: 70% monthly. - CSAT Score: 4.5/5 or higher.

10. Sustainability & Scaling

Avalanche uses efficient JavaScript, lazy-loading, and serverless backends to minimize resource consumption. The platform supports Avalanche blockchain rewards for eco-friendly activities and scales horizontally through modular API design.