

AIVA — AI Virtual Assistant for Product Managers

Polished Case Study • Generated on 2025-10-31

— CaseStudy —

Case Study — AIVA (Generated 2025-10-31)

1. Context & Problem

New PMs lack guided, contextual assistance to convert ideas into production-ready PRDs with measurable KPIs.

2. Process

Discovery → PRD → Wireframes → Architecture → MVP → Test → Iterate.

3. Results (MVP)

- PRD generation end-to-end from a single idea prompt.
- KPI suggestions and competitor quickscan.
- Export to Markdown.

4. What I Learned

- Narrow scope accelerates user value.
- Prompt design + sectioned output improves editability.
- Clear error handling matters as much as “smart” output.

5. Next Steps

- Firebase auth + cloud save.
- Template packs by domain (FinTech/EdTech).
- Inline examples and learning nuggets.

— PRD —

AIVA — Product Requirements Document (PRD)

1. Problem Statement

Aspiring PMs and early founders struggle to convert raw ideas into structured PRDs and measurable KPIs. They rely on static templates or generic chat tools that lack user context and guidance.

2. Objectives (Success Criteria)

- Reduce PRD first-draft time by **≥80%** (from ~6 hours to ≤1 hour).
- Achieve **≥70%** user-rated relevance of AI-generated sections.
- Enable **export** to Markdown/Doc and **save** versions per user.

3. Target Users & Personas

- **PM Student**: learning PM frameworks, needs structure & examples.
- **Indie Founder**: needs fast validation, KPIs, lightweight GTM.
- **Junior PM**: timeboxed drafts, consistency across teams.

4. Use Cases

1. Enter idea → get PRD outline + editable draft.
2. Ask “what KPIs should I track?” → Metric Mentor returns 3–5 KPIs.
3. Generate a quick competitor landscape (top 3 + SWOT bullets).

5. Functional Requirements

- AI PRD Generator (Problem, Goals, Personas, KPIs, Risks, Scope out)
- Metric Mentor (metrics by product type and funnel stage)
- Competitor Analyzer (top 3 + problem angle + quick SWOT)
- Save/Load PRDs (basic user context; local for MVP)

6. Non-Functional

- Response in ≤ 3 s for single sections, ≤ 10 s for full PRD.
- Clear error handling if AI API fails.
- Privacy: store locally unless user opts into cloud.

7. Assumptions & Constraints

- Internet & valid OpenAI key required.
- MVP focuses on **"single user local context"** (expand later).

8. Open Questions

- Should we add templates per domain (FinTech, EdTech, SaaS)?
- When to introduce authentication (Firebase) vs local persistence?

9. Metrics

- Draft Time Saved, Edit Distance (user changes), CSAT (1–5), Feature usage.

10. Scope v1 (MVP)

- PRD generator, KPIs, competitor quick-scan; Streamlit UI; export Markdown.

Meeting Answer Points

- **"MVP narrows scope to PRD + KPIs + competitor scan for speed of value."**
- **"Non-functional goals are response time and graceful failure behavior."**

— Research —

Research & Market Scan

Landscape

Existing tools: Notion templates, Craft.do, ChatGPT chats, some PRD generators.

****Gap:**** Lack of guided PM pedagogy + persistent context + KPI literacy.

Competitive Teardown (Quick)

- ****Notion Templates****: Great structure; no intelligence.
- ****Generic Chatbots****: Intelligent but unstructured; no PM pedagogy.
- ****Specialized PM AI apps****: Limited transparency; mixed quality.

User Interviews (Guide)

- What part of PRD is hardest? (e.g., metrics, risks, scope)
- What would "good enough" output look like?
- What's your tolerance for AI hallucinations?

Insights → Requirements

- Users want **"editable"** output, not black-box PDFs.
- Need **"examples"** per section (e.g., "good KPI for B2C onboarding").
- Export to **"Markdown"** and **"copy to Notion"** is essential.

— Architecture —

System Architecture

```
```mermaid
flowchart TD
 UI[Streamlit UI] --> API[Local Backend]
 API -->|LLM Prompt| OpenAI[(OpenAI API)]
 API -->|Read/Write| Storage[(Local/JSON; later Firebase)]
 OpenAI --> API --> UI
```
```

Sequence (Generate PRD)

```
```mermaid
sequenceDiagram
 participant U as User
 participant S as Streamlit
 participant B as Backend
 participant O as OpenAI
 U->>S: Enter idea & click Generate
 S->>B: Build structured prompt
 B->>O: ChatCompletion request
 O-->>B: PRD sections (JSON/Markdown)
 B-->>S: Render + edit controls
 S-->>U: Editable PRD + export
```
```

— TestPlan —

Test Plan

Scope

MVP functional flows: PRD generation, KPI suggestions, competitor quick scan, export.

Cases

1. Empty idea → show validation error.
2. Normal idea → PRD within 10s.
3. AI outage → friendly fallback message.
4. Export → file downloads with sections.

UAT Criteria

- 3 pilot users rate outputs $\geq 3.5/5$ on relevance.
- No crashes; clear failure messages.