

Assignment 1: Capstone Project

Definition & Market Analysis

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Idea: MapsDotFun is a Web3 analytics platform that visually maps and analyzes wallet clusters, token ownership patterns, and transaction behavior on the Solana blockchain.

Its goal is to bring transparency to Solana's token ecosystem by helping users quickly identify centralized ownership, suspicious wallet activity, and liquidity concentration risks key red flags for rug pulls and market manipulation.

Using real-time analytics and visual clustering, MapsDotFun transforms complex on-chain data into intuitive, actionable insights that allow traders, investors, and analysts to assess a token's legitimacy before investing.

Part A: Initial Definition & Research

1) Core Value Proposition & Product-Market Fit (PMF)

MapsDotFun is a Web3 analytics platform designed to bring transparency to Solana's token ecosystem through interactive visualizations of wallet clusters and token ownership patterns. The platform helps users quickly identify centralized ownership, suspicious wallet activity, and liquidity concentration risks that often signal potential scams or manipulative behavior. Its core value lies in simplifying complex on-chain data into intuitive, actionable insights using real-time analytics and clustering diagram-based visual mapping. With the rise of new tokens and frequent rug pulls on Solana, MapsDotFun targets traders, investors, and security analysts who seek reliable, easy-to-understand tools to assess token legitimacy before investing. By bridging the gap between technical blockchain data and user-friendly analytics, MapsDotFun offers a clear product-market fit in the growing demand for trustworthy, visual, and data-driven token intelligence tools.

2) Key Target Markets

- Retail Crypto Investors & Traders

Individuals actively buying and selling Solana-based tokens who need quick, visual insights to identify safe versus risky tokens before investing.

- **Crypto Research & Analytics Communities**

Data-driven analysts, DeFi researchers, and blockchain enthusiasts who rely on transparent tools to study wallet distributions, token movements, and on-chain patterns.

- **Web3 Security Platforms & Auditors**

Firms or independent auditors performing smart contract and token safety evaluations that can use MapsDotfun visual data to complement technical audits.

- **Crypto Influencers & Educational Platforms**

Content creators, educators, and communities explaining token safety or trading strategies who need simplified visual aids to communicate blockchain data effectively.

3) Competitor Landscape

AI-Identified Competitors

1. **Bubblemaps** – Provides visual wallet clustering for Ethereum, BNB, and Solana networks.
 - **Weaknesses:** Limited customization in data filters, lacks real-time updates, and mostly focuses on ownership concentration rather than liquidity or behavioral analytics.
2. **RugCheck.xyz** – Offers token audit summaries and on-chain safety scores for Solana projects.
 - **Weaknesses:** Focused on textual risk summaries, not visualization; lacks behavioral or relational analysis between wallets.
3. **SolScan / Birdeye** – Popular Solana explorers providing token-level and transaction analytics.
 - **Weaknesses:** Great for raw data but not user-friendly for visual analysis or identifying wallet relationships.
4. **DEXTools / GeckoTerminal** – Show liquidity pools and price movement data for tokens.
 - **Weaknesses:** Lacks ownership transparency and wallet clustering; primarily focuses on price charts rather than token legitimacy.

Manually Discovered Competitors (Missed by AI)

1. **SolanaFloor** – Focuses on Solana analytics and NFT data, partially covering token insights.

- **Gap:** Doesn't visualize wallet interconnections or highlight ownership risks.
- 2. **Step Finance** – A Solana portfolio management tool with some token analytics features.
 - **Gap:** No clustering or bubble visualization; aimed at DeFi portfolio tracking, not transparency.
- 3. **MoonRank & Hyperspace (for NFTs)** – NFT transparency and ranking tools.
 - **Gap:** While NFT-focused, demonstrates market interest in visual transparency tools that MapsDotFun could adapt for tokens.
- 4. **SolanaFM** – Comprehensive Solana block explorer.
 - **Gap:** Highly technical, lacks abstraction for retail users and non-developers.

Analysis of Gaps

The AI correctly identified leading analytical tools but missed some Solana-native or niche visualization platforms like SolanaFloor and Step Finance, which are relevant competitors in overlapping domains.

Across both groups, a common weakness is the lack of visual, real-time clustering of wallet relationships combined with actionable behavioral insights.

This gap presents a clear opportunity for MapsDotFun to differentiate by offering an intuitive bubble-based interface, real-time analytics, and risk detection logic that translates technical blockchain activity into clear, user-understandable patterns.

4) Founder-Market Fit (FMF)

As a full-stack developer with a strong foundation in web2 technologies, I bring the technical depth and curiosity needed to build a project like Mapdotfun. My experience with the MERN stack, and an understanding of smart contracts and blockchain fundamentals uniquely position me to design both the backend logic and front-end visualization of on-chain data. Having explored tools like RugCheck and Bubblemaps, I understand their technical limitations and user experience gaps, which inspired me to create a more accessible, real-time, and transparent analytics solution. My ongoing journey toward becoming a Web3 developer, combined with a strong interest in decentralized transparency and security, makes me personally invested in solving the problem Mapsdotfun addresses. This alignment between my technical skill set, domain interest, and market understanding forms a strong founder–market fit for this project.

Part B – Step 1: Adversarial AI Task

GPT Response: [Link](#)

1) Adversarial AI Task:

1. Value Proposition — Strong foundation, but needs clarity & differentiation

What's Good

- You've nailed the *why it matters*: Solana is rife with low-effort tokens and rug pulls; users need visual, data-backed tools to make sense of risk.
- “Interactive visualizations of wallet clusters and token ownership patterns” is a strong hook — clear and concrete.
- You connect visuals + behavioral analysis, which is rare and valuable.

Gaps / Weak Spots

- The value statement is broad — it tries to appeal to traders, analysts, auditors, and educators at once. That dilutes focus. You need *one hero persona* for MVP.
 - Are you solving for *speed and clarity* (traders)?
 - Or *depth and accuracy* (analysts)?These are not the same product in v1.
- No clear differentiation promise yet. “Transparency” and “user-friendly analytics” are overused in Web3.
You need something like:

“MapsDotFun instantly reveals who really controls a Solana token — before you buy in.”
or

“Behavioral analytics for Solana tokens — visualize hidden wallet clusters, detect manipulation patterns, and predict rug risk in real time.”

Fix

Position it around actionable trust signals, not just data viz:

“MapsDotFun helps traders and analysts see *hidden control structures* in Solana tokens — through real-time visual clustering and behavioral risk analysis — so they can invest safely.”

That's sharper, emotionally resonant, and implies utility.

2. Target Markets — Well-scoped but unfocused for MVP

You've identified *who could use it*, but not *who you're building for first*. Let's assess:

Segment	Fit for MVP	Reason
Retail Investors & Traders	Primary Target	They have the strongest pain: fear of rugs and fake liquidity. They don't want deep analytics, they want "safe or risky?" fast.
Crypto Research / Analytics Communities	Secondary	Valuable for later (advanced charts, filters, etc.) but not initial growth driver.
Web3 Security Platforms / Auditors	Not MVP	They require precision and verified data, not heuristic clustering. Not your first customer unless you reach institutional-grade reliability.
Influencers / Educators	Bonus Growth Channel	Great for distribution once your visualizations are clean and embeddable. Not your core target, but an amplifier.

Fix

Define one primary target for your MVP — Solana retail investors and active traders — and build everything else around them.

- Goal: Help them **decide in 30 seconds whether a token is safe**. Everything else (research dashboards, auditor tools) comes later.

3. Competitive Analysis — Strong start, missing hidden competitors & behavioral depth

What's Good

- You picked **Bubblemaps** and **RugCheck**, which are *exactly* the right benchmarks.
- You identified their weaknesses correctly — static checks, paywalls, weak behavioral context.
- The "AI-likely" label is clever shorthand for discoverability bias.

What's Missing

1. Under-the-radar analytics tools

You missed the “quiet” competitors that don’t do bubble maps but overlap on value:

- **Birdeye** — real-time Solana analytics + portfolio & volume tracking (users already rely on it).
- **Solscan / SolanaFM** — explorers with token ownership breakdowns (potentially expand to visual clustering).
- **StepData / Step Finance** — visual token dashboards with ownership charts (they could eat your space fast).
- **Arkham Intelligence** — on-chain entity clustering (centralized and cross-chain, but similar vision).
- **DexScreener** — real-time trading data visualization; not safety-focused, but same audience.

2. Niche community / open-source competitors

- **DegenScore / TokenSniffer clones** — already run by small communities; could evolve into visual platforms.
- **AI-driven analytics tools (e.g., Bubblemaps + ChatGPT-powered interpretations)** are an emerging segment. You’ll face them soon.

3. Differentiation risk:

You’re not yet in a *blue ocean*. You’re in a **red ocean with a white-space niche**:

→ The “visual + behavioral risk” combo is fresh,
but “token safety analytics” is saturated. You’ll need to win on **execution, clarity, and trustworthiness**.

Strategic Summary

Area	Current	Recommendation
Value Proposition	Broad “transparency through visualization”	Narrow it to “instant, visual Solana token risk detection.”
Primary User	Traders + Analysts + Auditors + Educators	Focus on retail traders first.
Differentiator	Visual clustering + transparency	Push “behavioral pattern + real-time alerting” angle.

Area	Current	Recommendation
Competitors	Bubblemaps, RugCheck	Include Birdeye, Solscan, Arkham, StepData; differentiate with <i>interpretability</i> and <i>real-time clustering</i> .
Blue Ocean?	Partial	Not yet — but possible if you combine behavioral signals + visual simplicity + open accessibility .

2) Refine Project Definition:

1. Refined Value Proposition

Before

MapsDotFun is a Web3 analytics platform designed to bring transparency to Solana's token ecosystem through interactive visualizations of wallet clusters and token ownership patterns. The platform helps users quickly identify centralized ownership, suspicious wallet activity, and liquidity concentration risks that often signal potential scams or manipulative behavior.

After (Refined)

MapsDotFun reveals who really controls Solana tokens — instantly.

Through real-time visual clustering and behavioral analytics, MapsDotFun helps traders and analysts detect hidden wallet networks, ownership concentration, and manipulative activity before they invest.

By transforming raw on-chain data into simple, interactive visual maps, it turns token safety into an *actionable insight* rather than a research burden.

Rationale

- Simplified the language — the old version was explanatory, not persuasive. The new one **states the core promise upfront**: “reveals who really controls Solana tokens.”
 - Moved from “transparency and visualization” (generic) to “**control detection and behavioral insight**” (unique and emotionally resonant).
 - Emphasized **speed and actionability** (“instantly,” “before they invest”) to align with the needs of retail traders.
 - Removed fluff about “bridging the gap” — replaced with a crisp value-action relationship: *raw data* → *actionable insight*.
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2. Refined Target Market

Before

1. Retail Crypto Investors & Traders
2. Crypto Research & Analytics Communities
3. Web3 Security Platforms & Auditors
4. Crypto Influencers & Educational Platforms

After (Refined & Prioritized)

Primary Target Audience

- **Retail Solana Traders & Active Token Investors**
Individuals who frequently buy new Solana tokens and need **instant clarity on token safety** before committing capital.
 - Use Case: “Is this token a rug or real project?”
 - Pain: No fast, visual, trustworthy risk signal.

Secondary Audiences

- **Crypto Research & Analytics Enthusiasts**
Power users who want to explore **wallet network dynamics**, token movement patterns, and long-term behavior clusters.
 - Use Case: Deep-dive token analysis, behavioral tracking.
- **Crypto Educators & Influencers**
Content creators explaining token safety who can use MapsDotFun’s **visual maps as teaching tools** or social content.
 - Use Case: Explaining rug pull patterns visually.

Future / Institutional Targets

- **Web3 Security Platforms & Auditors** (Phase 2–3)
Professional firms who may later use MapsDotFun’s clustering engine to complement **contract audits** with **behavioral ownership analysis**.

Rationale

- The critique was correct: the previous target list was *too broad for MVP*.
- The revised hierarchy focuses the **MVP** around **retail traders**, who have the strongest and most urgent pain point.

- Analysts and educators remain in scope for future **growth channels** and **community visibility** — but not for MVP.
- Auditors are deferred intentionally until product reliability and accuracy are validated.
- This focus gives you a **clear direction for product design**: quick insights, simple UI, and fast updates over complex dashboards.

3. Refined Competitor Landscape

Before

You listed:

- Bubblemaps
- RugCheck
With observations about their weaknesses (paywalled, static checks, limited behavioral depth).

After (Expanded & Structured)

Competitor	Core Focus	Weakness / Gap	Opportunity for MapsDotFun
Bubblemaps	Cross-chain wallet clustering visuals	Proprietary, paywalled; lacks behavioral or predictive analytics	Deliver open-access, Solana-focused behavioral clustering with real-time updates
RugCheck (rugcheck.xyz)	Static rug-pull risk score for Solana tokens	One-time snapshot, limited behavioral history	Combine RugCheck-style static checks + dynamic wallet behavior over time
Birdeye.so	Real-time token price + liquidity analytics	Focused on trading, not ownership; lacks visual risk cues	Integrate ownership visuals + risk scoring alongside liquidity data
Solscan / SolanaFM	General-purpose block explorers	Technical, text-heavy, no visual clustering	Provide visual, non-technical interface for token structure understanding

Competitor	Core Focus	Weakness / Gap	Opportunity for MapsDotFun
StepData / Step Finance	Portfolio + transaction tracking	Focused on portfolio performance, not token legitimacy	Differentiate with fraud-risk and clustering , not finance metrics
Arkham Intelligence	Entity clustering (cross-chain)	Centralized, overkill for Solana retail users	Build chain-specific, simplified alternative with privacy and accessibility
DegenScore / TokenSniffer clones	Risk scoring via static heuristics	No visual or behavioral insights	Combine heuristics + visual network data for richer token intelligence

Positioning Summary

MapsDotFun's niche:

The *first* Solana-native, real-time **behavioral clustering and risk visualization platform** that unifies ownership transparency, activity tracking, and safety insights into one interface.

Rationale

- The critique pointed out that **you were missing both major and niche competitors**. The new list includes **data explorers, analytics dashboards**, and **entity mapping tools**.
- Clearly separates **feature overlap vs. differentiation** — showing that MapsDotFun's unique combo (behavioral clustering + visualization + real-time updates) still has a **white-space**.
- Establishes a **clear positioning angle**: specialized for Solana, open, and visually intuitive.
- Frames your advantage as a "*behavioral + real-time + visual*" trifecta — which is harder for existing tools to replicate quickly.

Final Summary

Element	Old State	Refined State	Rationale
Value Proposition	“Transparency & visualization”	“Instantly reveal who controls Solana tokens”	Stronger emotion, tighter focus, clearer benefit
Target Market	4 equal audiences	Hierarchy: traders → analysts → educators → auditors	MVP focus + phased scaling
Competitive Landscape	2 obvious competitors	7 total (major + niche)	Comprehensive & realistic market view
Differentiation	Visual transparency	Real-time behavioral clustering for token safety	Actionable + defensible advantage

3) Critique & Refine FMF:

1. CRITIQUE — Where your FMF sounds good, and where it’s weak

Strengths

- You show **clear understanding of the Solana ecosystem** — you recognize token scams, rug pulls, and the chaos of rapid token creation.
- You articulate a **specific, technical pain** (hard to interpret wallet ownership data).
- You’re solving a *real* problem that *you understand as a developer/trader/analyst type*, which helps with early credibility.

Weaknesses

1. You’re describing the product, not your fit with it.

Founder–market fit isn’t *what* the product does — it’s *why you are uniquely qualified* to build it.

Your section is really a **product-market fit**, not a **founder-market fit** narrative.

What’s missing:

- Personal experience that proves **you’ve felt this pain first-hand**.
- Demonstration of **skill alignment** (why you can build the tech and attract users).
- Credibility in the **Web3, Solana, or data analytics** space.

Without those, the section reads as if anyone with technical ability could build it.

2. No evidence of domain empathy.

You mention “transparency” and “user-friendly analytics,” but not:

- That you’ve *personally been rugged, misled, or frustrated* by token opacity.
- That you’ve *analyzed or built on Solana* before.

You’re missing a “founder story” hook — a reason for *why you care*.

3. No edge on insight or network.

Strong founder-market fit usually comes from at least one of:

- Insider insight (pain no one else sees),
- Domain network (you already know the target users),
- Technical unfair advantage (you can ship faster or smarter).

Your current text doesn’t convey any of these advantages. It reads as a *smart idea*, not a *deeply personal or strategically advantaged pursuit*.

4. Positioning is too generic.

You say “bridging the gap between technical blockchain data and user-friendly analytics.”

That could describe **50+ startups**.

FMF should make it obvious that *you* are the founder who sees something others miss — e.g., *why visual clustering on Solana specifically is underdeveloped*, or *why existing tools fail real traders*.

2. REFINED FMF STATEMENT

As a Web3 engineer and active Solana developer, I’ve repeatedly seen how difficult it is for traders and analysts to verify token legitimacy before investing. After exploring Solana’s on-chain data firsthand, I realized that most tools focus on token prices and liquidity—but ignore wallet behavior and control patterns that actually reveal manipulation.

MapsDotFun was born from that frustration. My background in full-stack and Web3 development gives me the technical foundation to build scalable visual analytics, while my experience analyzing Solana clusters helps me design the kind of intuitive, trust-focused tools I wish existed for myself and other investors.

This combination—deep understanding of the problem, hands-on technical capability, and personal stake in solving transparency for Solana—is what gives me strong founder–market fit for MapsDotFun.

3. RATIONALE FOR CHANGES

Weakness Identified	Refinement Made	Why It Strengthens FMF
Product description instead of founder story	Added your personal <i>why</i> and <i>how you discovered the problem</i>	Makes your motivation credible and emotionally resonant
No domain empathy	Mentioned firsthand frustration and lived experience as a Solana dev/investor	Demonstrates authentic understanding of the pain point
Lack of unfair advantage	Highlighted your technical strengths (Web3, analytics, Solana clustering)	Shows capability to execute faster and smarter than others
Generic positioning	Focused narrowly on “wallet behavior and control patterns” gap	Defines a unique insight others missed
No emotional pull	Framed MapsDotFun as a solution to a personal frustration	Adds conviction — investors and users respond to that tone

Final Snapshot

Old FMF Tone:

A generic Web3 startup explaining a good idea clearly.

New FMF Tone:

A founder who lived the problem, understands the Solana ecosystem deeply, and has the technical and experiential edge to solve it authentically.