Capstone Project Proposal

Part A Final Project Proposal

1. Idea Overview

My capstone project is a **CLOB (Central Limit Order Book) marketplace built on Solana**, designed to offer traders a faster, more efficient alternative to AMM-based DEXs. By leveraging Solana's high throughput and low fees, it enables real-time order execution with minimal slippage. The goal is to provide both retail and institutional traders with deeper liquidity, better price discovery, and more transparency compared to existing AMMs.

2. Core Value Proposition & Product-Market Fit (PMF)

The core value proposition of this project is to bring **CEX-level performance and transparency** to decentralized trading through a **fully on-chain CLOB built on Solana**. It eliminates major AMM drawbacks like slippage and impermanent loss while offering efficient order execution, real-time liquidity, and full user control. Product-market fit is strongest among **DeFi traders, professional market makers, and institutions** looking for a low-latency, high-throughput trading environment without sacrificing decentralization or self-custody.

3. Key Target Markets

The project targets the following user segments:

- **Professional traders** seeking speed and precision.
- **Institutional market makers** need transparent order execution.
- **DeFi aggregators** integrating advanced order routing.
- **Hybrid exchanges** bridging centralized and decentralized liquidity.
- **Retail power users** who value low fees and instant execution.

4. Competitor Landscape

Key competitors include **Hyper Foundation, Drift Protocol, Flash Trade, dYdX and Injective Protocol**.

- **Hyper Foundation** focuses on infrastructure and modular trading primitives but lacks a fully user-facing CLOB optimized for retail and institutional traders.
- **Flash Trade** offers low-slippage execution and NFT-based incentives but is not a pure CLOB, limiting order-book depth and efficiency.
- **Drift**, **dYdX**, and **Injective** dominate derivatives trading or operate outside the Solana ecosystem, leaving a gap for a native, high-performance, spot-market CLOB.

Overall, competitors either rely on AMM or hybrid pool mechanisms or are non-native to Solana. This creates a strategic opportunity for a **pure Solana-based CLOB** that offers institutional-grade liquidity, transparent pricing, and high composability with other DeFi protocols.

5. Founder-Market Fit (FMF)

I'm a **blockchain developer focused on the Solana ecosystem**, skilled in **Rust, Anchor, and TypeScript**, with hands-on experience building decentralized applications and exploring the inner workings of on-chain programs. As a **graduate of the Ackee Solana Bootcamp**, I've gained hands-on experience in building secure and efficient on-chain programs while developing a deep understanding of Solana's runtime and DeFi architecture.**Together with @bytehash69**, we share a vision of advancing decentralized trading infrastructure through a **fully on-chain CLOB** that combines institutional-grade performance with transparency and composability

Part B — Adversarial Analysis & Refinement

1. Adversarial AI Critique

AI critique identified potential weaknesses such as:

- **Market saturation risk** due to existing hybrid exchanges.
- **Liquidity bootstrapping challenges** for a new CLOB platform.
- **Limited differentiation** if speed and fees are the only advantages.

These insights prompted refinements including liquidity incentives, institutional analytics tools and robust risk management systems to improve user retention and market resilience.

2. Refined Value Proposition & Target Market

The refined value proposition emphasizes **institutional-grade, Solana-native CLOB trading** with deep liquidity, transparent order books, and composability across DeFi protocols. The platform will feature:

- **Liquidity incentives** to attract early users.
- **Real-time analytics** for traders.
- **Advanced risk management** for capital protection.

Refined target markets include professional traders, institutional liquidity providers, DeFi protocol integrators, hybrid exchanges, and retail power users.

3. Refined Competitor Analysis

Updated competitors: **Hyper Foundation, Drift, Flash Trade, dYdX, Injective and Zeta**

Differentiators include:

- Pure CLOB mechanics (no AMM hybridization).
- Institutional-grade analytics and monitoring tools.
- Liquidity incentive systems.
- Composability with the Solana DeFi stack.

4. Refined Founder-Market Fit

I'm a **Solana-focused blockchain developer** with expertise in **Rust, Anchor, and TypeScript**, driven by a passion for understanding and optimizing on-chain systems. As a **graduate of the Ackee Solana Bootcamp**, I've gained hands-on experience building secure, efficient, and scalable smart contracts, while exploring the inner workings of Solana's runtime and DeFi protocols. My approach combines curiosity with practical execution. **Together with @bytehash69**, who brings complementary technical and strategic strengths, we are uniquely positioned to build a **fully on-chain CLOB** that combines institutional-grade performance, deep liquidity, and composability, setting a new standard for decentralized trading on Solana.

Process Appendix

Step 1 - Idea Overview
A decentralized CLOB marketplace on Solana that eliminates AMM inefficiencies like slippage and low capital efficiency. Leveraging Solana's speed and low fees, it enables real-time, order-based trading with deep liquidity and transparent price discovery - delivering institutional-grade performance for DeFi traders and builders.

Step 2 - Value Prop & PMF
Defined execution efficiency, capital efficiency, and transparency. Later refined to include analytics and liquidity incentives.

Step 3 - Target Markets
Narrowed to institutional traders, DeFi protocols, hybrid exchanges, and retail power users.

Step 4 - Competitor Landscape
Manually researched and updated to include **Hyper Foundation**, replacing Phoenix and OpenBook.

Step 5 - Founder-Market Fit
Updated to emphasize technical skills, experience with DeFi protocols, and collaboration with **@bytehash69**.

Step 6 - Adversarial Analysis
Incorporated critique around differentiation, liquidity, and risk management to strengthen PMF and FMF coherence.