Part A: Final Project Proposal

Title : Onchain Turn based RPG game

Genre : Gaming

1. **Value Proposition and Product Market Fit(PMF):**
    - An on-chain turn-based RPG inspired by classic Pokémon games, where players battle through trainers in a city gym to earn XP and a collectible NFT (cNFT) by defeating the gym leader. The game blends nostalgia with blockchain-based ownership. The core value lies in skill-based progression, verifiable achievements on-chain, and the future potential for multiplayer competition. This model resonates with both Web3-native gamers and fans of classic RPGs, offering a unique combination of fun, ownership, and competition.
2. **Key Target Markets:**
    - Web3-native gamers who love turn-based strategy or RPGs
    - Classic retro game lovers, especially Pokémon fans
    - Solana ecosystem builders looking for fun dApps
    - Gamified NFT collectors
    - Crypto-native students or hackathon builders

3. Competitor Landscape

- Aurory (Solana-based RPG with PvP mechanics)
- Ev.io (Web3 FPS, game-focused but not RPG)
- Axie Infinity (turn-based PvP with NFT ownership)
- Pixelmon (recent revival with NFTs, less gameplay depth)

4. Founder Market Fit:

- I’ve been into games, especially RPGs — since I was a kid. I spent hours playing Pokémon FireRed and LeafGreen, and those games sparked my interest in how games work. I started coding in 2020, and since 2022 I’ve been building in Web3, mainly on Ethereum and Solana. I’ve worked on multiple dApps, played around with different game mechanics, and won a few hackathon track prizes along the way. On-chain games have always been the most exciting part of Web3 for me, and this capstone project is a chance to finally build one the way I’ve always imagined.

Part B: Process Appendix

Initial Definition and Research

- **Project Overview :**
    - an on-chain, turn-based RPG inspired by classic Pokémon games like FireRed and LeafGreen. Players explore a city and battle gym trainers and a gym leader. By defeating each trainer in sequential battles, players earn XP, and upon defeating the gym leader, they receive a cNFT for that particular gym. The future scope is to add a multiplayer module that will allow players to challenge the "Global Leader" of the city in asynchronous PvP matches by staking SOL, creating an engaging, competitive, and rewarding ecosystem.

1. **Core Value Proposition & Product-Market Fit (PMF) :**
    a. **Prompt output(For value proposition and PMF) :** Turbine Town offers a nostalgic, gamified learning and achievement system built on top of blockchain. The core value lies in combining turn-based RPG mechanics with verifiable on-chain progression, allowing players to earn soulbound cNFTs that signify skill and commitment. It taps into the rising demand for learn-to-earn experiences and Web3-native gaming by introducing collectible rewards, asynchronous PvP, and

on-chain persistence. The use of Anchor and Solana ensures fast, low-cost interactions, while the future expansion into multiplayer battles introduces community-driven competitive dynamics. The product-market fit is initially strong among Web3-native gamers, cohort-based learners, and nostalgic players seeking deeper blockchain-integrated experiences.

2. **Key Target Markets :**
    a. **Web3-native gamers** – individuals who already play blockchain games and are familiar with wallets, NFTs, and tokens.
    b. **Solana and Anchor developer communities** – developers or cohort members seeking hands-on learning experiences through gamified use cases.
    c. **Gamers with nostalgia for Pokémon-style RPGs** – retro game lovers who want to relive childhood gameplay in a modern Web3 setting.
    d. **Learn-to-earn participants** – people engaging in cohort-based Web3 education who value proof of progress (XP, NFTs).
    e. **Casual competitive players** – users interested in asynchronous PvP battles with small SOL stakes for fun and reward.

3. **Competitor Landscape :**
    a. **Identified by AI :**
        i. **Aurory** : Twitter .
        Weakness : Complex for casual players
        ii. **Ev(dot)io:**
        Weakness : FPS gameplay, irrelevant to turb-based RPG

iii. **Sipher :** Twitter

Weakness : Expensive NFTs, not beginner friendly

b. **Self Research :**

i. **Blockstranding :** Twitter

Weakness: Most users are more interested in the game because of the $STRAND token reward, so it feels more of reward driven.

ii. **Phantom Galaxies :** Twitter

Weakness: Too complex, not designed for nostalgic/casual audiences

iii. **World of Dypians:** Twitter

Weakness: Not turn-based, massive metaverse angle irrelevant for RPG

4. **Founder Market Fit :**

a. **Manual Task :**

- **I'm a recent CS grad who started coding in 2020 with C++ and Java, initially focusing on competitive programming. Over time, I shifted to web development, explored the MERN stack, and then picked up Next.js. Around 2022, I discovered web3 and started building on Ethereum — writing smart contracts and participating in hackathons. I've always been drawn to gaming and DeFi in web3, which led me to Solana. I've built several projects, including a typing game called typeonchain.fun that uses Magicblock's ephemeral rollups to make every keystroke a transaction. That project made me realize the potential of on-chain games — but also that I needed to go deeper with Anchor to build the things I had in mind. That's why I**

joined Solana Turbine, to push further into web3 gaming and bring those ideas to life.

b. **AI generated :**

- With a strong foundation in both software development and the web3 space, I bring a unique blend of technical depth and domain insight to this project. I began my journey in 2020 with traditional programming and quickly transitioned into full-stack development before entering the web3 ecosystem in 2022. Since then, I've built multiple dApps on Ethereum and Solana, participated in and won hackathon track prizes, and developed on-chain games using tools like Magicblock's ephemeral rollups. My recent project, *typeonchain.fun*, reinforced my belief in the potential of on-chain games, and also highlighted the technical challenges — especially around Anchor. Through Solana Turbine, I'm now deepening my skills specifically to tackle those limitations. This capstone isn't just a learning opportunity; it's a focused step toward solving problems I've encountered firsthand and building games I know the web3 audience is hungry for.

Adversarial Analysis & Refinement

1. **Adversarial Analysis & Refinement:**
    - **Value Proposition Concerns:**

i. While blending Pokémon nostalgia with on-chain gaming is appealing, it’s unclear whether cNFTs and asynchronous PvP create lasting engagement or sustainable replayability.
ii. There’s potential user friction in requiring users to hold SOL or understand rollups — which narrows accessibility.
iii. Many web3 gamers are fatigued by games that over-prioritize token mechanics at the cost of gameplay depth. Is this game truly fun first?

- **Target Market Overlap:**
  i. There's significant overlap among your listed audiences — many belong to the same niche (web3-native gamers).
  ii. The game may struggle to attract traditional gamers unless onboarding barriers (wallets, SOL payments, etc.) are drastically lowered or abstracted.
- **Competitive Blind Spots:**
  i. Missed competitors like TreasureDAO’s ecosystem, Pixels, and even non-turn-based games like Big Time which are fighting for the same mindshare.
  ii. AI also missed chain-agnostic platforms like Immutable, which could become distribution threats.
  iii. You’re also competing against AI-generated game engines (e.g., Scenario, Inworld) that make launching RPGs easier and may result in a flood of similar titles.
- **Blue Ocean Myth?**

i. On-chain games are hot, but far from a blue ocean. Many teams are iterating on this space. Your edge must be either a 10x better UX, novel gameplay, or deeper lore — otherwise, you risk being a variation, not a breakout.

- **My Analysis on it :**
    - Some concerns are valid. It correctly identified that while the value prop has nostalgic appeal, the long-term engagement loop needs more clarity beyond XP and cNFTs.I'll need to double down on ensuring that the game itself is enjoyable, even without token incentives. The critique about overlapping target audiences is fair! I may need to better segment or prioritize between retro gamers and web3 natives. The blue ocean thing is also correct at some point, I will have to include better narrative, character appeal and social gameplay loop! Overall the feedback is decent and can help the project.

2. **Refined Project Definition :**
    - A turn-based, on-chain RPG inspired by Pokémon, where players explore a city, challenge NPCs in battles, and earn XP and cNFTs tied to in-game achievements. The game emphasizes fun-first design with simplified onboarding, while using on-chain mechanics (XP, battles, cNFTs) to ensure persistence and ownership. Future updates may include asynchronous PvP (Global Leader mode), adding a competitive and social layer.
    - **Rationales :**
        - "Fun-first" to address concerts about token focused project

        - Emphasized simplified onboarding
        - More clarified purpose of on-chain mechanics
        - Mentioned “Future Updates” instead of over-promising on the multiplayer angle!
    - **Refined Target Market :**
        - Web3 gamers who value game ownership and persistent worlds
        - Retro RPG fans who are curious about blockchain-enabled gaming
        - Solana developers and community members who support ecosystem-native projects
        - Competitive players seeking PvP-based economic incentives
        - Web3-native communities open to nostalgic, narrative-driven games

    - **Refined Competitor list :**

        - **Pixels: massively multiplayer pixel-based world**

        - **TreasureDAO ecosystem: Bridgeworld, RPGs with loot-based mechanics**

        - **Big Time: action RPG with collectible NFTs**

3. **Refined Founder Market Fit :**
    - **I’m a recent CS grad who started coding in 2020 with C++ and Java, then moved into full-stack development with the MERN stack and Next.js. In 2022, I shifted into web3, building smart contracts on Ethereum and later exploring Solana — especially**

for gaming use cases. I've participated in multiple hackathons and shipped several projects, including TypeOnChain.fun, where every keystroke becomes a transaction using Magicblock's ephemeral rollups. That project pushed me to think deeper about what's possible in on-chain gaming. While I've mostly worked solo, I've collaborated with designers in previous hackathon teams and have actively engaged with web3 communities. I joined Solana Turbine specifically to go deeper into Anchor and finally build the kind of persistent, logic-driven game I've always wanted to play.

- **Rationales :**
    i. Lacked teamwork related things so added hackathon collaboration part
    ii. Re-emphasized the motivation behind building the game
    iii. Kept project- specific experiences