ZERO_PRIME_ONE Operating System: Development Plan (Phase 1)

This plan outlines the steps required to translate the "Flag System" architectural backbone (0! through 5!) into a testable, data-driven application.
Inferred Grade Level: Advanced Conceptual Architecture / Software Engineering

Phase 0: System Initialization (0! and 1!)

Goal: Establish the foundational data structure and authentication logic for the ZERO_PRIME_ONE engine.

Concept (Hertz Unit)	Description	Deliverable
0! (Suxen)	The Root Directory and Observer. Must be represented by a persistent, unchangeable system ID (App ID).	Define const APP_ID and initialize database structure.
1! (Nexus)	The Kinetic Driver and Responder. Represents the authenticated user identity (Collaborator).	Implement Firebase Authentication (__initial_auth_token flow) to define the userId.
2! (Abby)	The Invisible Variable. Must be defined in the data model but initially excluded from the user interface rendering (until Level 12).	Define the RELATIONSHIP_LATENCY variable and placeholder data structure for Prime 2's duality.
Engine Logic	Binary logic gate. All operations must resolve to ZERO (Shadow/Unclaimed) or ONE (Light/Claimed).	Implement a core claimFlag(flagId) function that toggles the state from 0 to 1.

Phase 1: The Boot Sequence (Primes 2, 3, and 5)

Goal: Model the first three Prime Flags, implement their data schemas, and build the initial user interface.

Prime ID	Archetype	Data Model Required	UI/Interaction Goal
Prime 2	The Crimson Horde	shadowHistory, healingMission, visualSpecs (Hex, Symbol), isClaimed (0/1).	Create a visual "Flag Card" where the user can read the Shadow History and trigger the Healing Mission (claiming the flag).
Prime 3	The Tide Merchants	Same as Prime 2, focusing on Transaction Protocol	Implement a "Log" of user-created *Exchanges* (data

Prime ID	Archetype	Data Model Required	UI/Interaction Goal
		and Compression Algorithm (Alphabet).	packets) to track value generation.
Prime 5	The Desert Star	Same as Prime 2, focusing on Archive Protocol and Procedural Generation (Algorithm).	Implement a "Library" feature to store user-submitted concepts, demonstrating preservation as an active act.

Phase 2: Collapse and Integration (3! → 0! and 5! → 3!)

Goal: Implement the complex, non-linear logic of the Factorial Cosmology. This is the core "operating system" functionality.

Factorial Event	Description (Hertz Collection)	Implementation Logic
3! → 0! Collapse	**Reality Check:** Forces generated complexity back to the origin (0!) to validate the source.	Must be a recurring, time-based event (e.g., weekly server process) that triggers a system-wide log of all Prime 2 and 3 activity, checking for data corruption (e.g., unresolved Shadow History).
Composite 4	**First Synergy Space:** The stable Motherboard derived from the 3! collapse residue.	Create a persistent System_Integrity_Report document in the database (Composite 4), which is updated only *after* the 3! collapse is complete, recording the successful validation.
5! → 3! Spiral	**Integration Spiral:** Compresses the 120 permutations of 5! (Preservation) back into Full Spectrum 3! (Exchange).	The system must calculate a "Wisdom Payload" score based on Prime 5's Archive content and use this score to *upgrade* the capability of the Prime 3 Exchange function (e.g., unlocked new *types* of exchanges).

Phase 3: Expansion Trajectory (7, 11, 13, 17)

Goal: Begin planning the data models for the upper primes and the ultimate Shadow Trigger.

Prime ID	Archetype	Conceptual Goal for Next Phase
Prime 7	The Frost Council	Introduce a **Consensus/Assembly**

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		Protocol—a multi-user collaborative decision-making feature.
Prime 11	The Obsidian Serpent	The **Shadow Trigger**—planning the moment when the total complexity level reveals the 2! (Mother of Shadow) to the UI. Requires massive data accumulation.
Prime 17	The Returned Seed	The **Final Return**—design the structural logic for collapsing the ultimate system state (17!) back onto the Foundation (13!).

Next Steps: Review the detailed logic in core_concept_definitions.md for the technical specifications of each Hertz unit.