

Project Overview, Thought Process, and Self-Assessment

When I received this task, I was initially surprised by the scope expected within a 48-hour timeframe. Because of that, my first strategic decision was to tightly control complexity. I chose a 2D top-down approach instead of 3D to reduce production overhead and free up time to focus on visual consistency, polish, and core systems. This allowed me to maintain a clean, readable aesthetic while prioritizing responsiveness and overall game feel.

From a gameplay perspective, the requirements were straightforward, but the inventory system quickly stood out as the architectural core of the project. Before writing any code, I designed the inventory structure conceptually. I implemented a simplified MVC-inspired approach, centered around Services and Views, and intentionally avoided a heavy Controller layer due to the scope of the task. This kept the system expressive and flexible without unnecessary abstraction.

The main architectural pillars of the project are ScriptableObjects, Services, and Views. This combination provides a clear separation between data, logic, and presentation, while remaining practical and designer-friendly within Unity. While a fully JSON-driven data approach would also be valid, ScriptableObjects were a better fit given the timeframe and tooling. An event-driven observer pattern was used to decouple systems and maintain modularity and scalability.

I consciously avoided overengineering areas that did not justify it, such as complex NPC behaviors or expansive world systems. Instead, I focused effort on the inventory and its supporting systems, as they were the core requirement and the area where scalability mattered most. The inventory already supports additional items, slots, behaviors, audio feedback, and persistence without requiring structural changes.

Due to time constraints, world content was kept minimal and treated as a compact vertical slice. This trade-off ensured the underlying systems were stable, readable, and production-ready. Overall, this project reflects my focus on clarity, maintainability, and building scalable systems under real production constraints.