🎮 Nature's Quest 🎄 🌴

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This prototype, built with Unity 6 and C#, demonstrates foundational mechanics for a PC game. The core system features include responsive third-person character movement, a dynamic slot-based inventory, interactive NPCs with dialogue, and a persistent save/load mechanism. UI elements are polished with DOTween animations, providing a smooth user experience.

My thought process during this task was driven by modularity and iterative development. I started with player movement and basic input, ensuring a solid foundation. Challenges arose with NullReferenceExceptions and input system conflicts, which were systematically debugged by analyzing Unity's lifecycle events, ensuring proper object referencing, and refining input action map switching. The NPC and audio systems were integrated as self-contained modules, emphasizing easy accessibility (AudioManager singleton, TalkableNPC interaction). Finally, UI juice with DOTween was added to enhance visual feedback, tackling common issues like animation overlaps by implementing DOKill and managing object scale/alpha.

From a performance perspective, I believe I successfully met all core requirements, delivering a functional and polished prototype within the given constraints. The code adheres to clean code principles, with clear naming conventions and separation of concerns, which aids maintainability and scalability. The incremental commits on GitHub reflect the iterative development process. Areas for potential improvement would include deepening the complexity of equipment logic (e.g., visual character changes, stat bonuses), expanding dialogue trees with choices, and exploring more advanced optimization techniques for larger-scale game development. Overall, I am pleased with the outcome and the learning experience gained through this hands-on challenge.