

Personal Assessment

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The game is divided into two scenes: one for the systems and UI, and the other for the actual gameplay. This division makes it easier to manage the game in smaller sections, facilitating the loading and unloading of specific elements. Additionally, it enhances the accessibility of the systems. While the impact might be minimal for a small game, this approach is particularly advantageous for larger games.

A State Machine was implemented in order to easily change the animations of the characters and separate into smaller sections of code the various actions that the character can perform. Both the player and the shopkeeper extend from a base Character class.

Since the game cycles through some UIs, a UI manager with easy access would be needed to manage all the different UI elements. The need for a UI manager becomes more evident the bigger the game gets.

The inventory system isn't directly attached to the player. This design choice ensures access to the inventory even in scenes without a player. In this type of game, the drag-and-drop feature for items between slots in the inventory proves to be the right choice. It allows for easy item swapping between slots and equipping/unequipping items.

Following the pattern of similar games, I considered implementing an interaction popup before accessing the shop. This system is designed to be configurable, with easily modifiable option choices through callbacks.

Scriptable objects were used to configure the item's values, and the idea was to have an extensive store with a lot of items. To navigate efficiently, the shop system incorporates filter tabs for faster browsing. The item type variable is responsible for the functionality of these filter tabs, and also for allowing specific items to be dragged to designated slots for equipping.

There is significant room for improvement, particularly within the UI and inventory systems. Implementing stackable items, the functionality to swap items between slots, or enabling a double-click option for faster item equipping are all possibilities. The potential enhancements are vast and contingent on the project's scale. Personally, I have delivered all the requested systems, ensuring their scalability and generic nature to facilitate their use in other games. Additionally, I've prioritized minimizing the use of Update methods throughout the development process.