

## System Explanation

The inventory system I developed leverages Scriptable Objects in Unity to manage game items efficiently. Scriptable Objects provide a powerful way to handle data that can be shared across multiple instances. In this system, each item in the inventory is a Scriptable Object, containing properties such as item name, description, icon, and unique attributes. The inventory itself is a list of these Scriptable Objects, allowing for easy addition, removal, and modification of items without duplicating data. I also developed intuitive system navigation, tutorial system, and improved the map.

## Thought Process During the Interview

During the interview, I focused on clearly articulating the benefits of using Scriptable Objects. I highlighted their ability to decouple data from game objects, promoting modularity and reusability. I discussed the design pattern employed to manage the inventory, emphasizing how it simplifies data handling and improves performance by reducing memory overhead.

I also demonstrated the implementation of the system, walking through the creation of Scriptable Objects for different items and the methods used to manage the inventory list. I showcased how the system can dynamically update the UI to reflect changes in the inventory, providing a seamless player experience.

## Personal Assessment of Performance

Reflecting on my performance, I believe I effectively conveyed my understanding of Scriptable Objects and their application in Unity. I successfully demonstrated the technical aspects of the inventory system and provided clear explanations of the underlying concepts. My ability to answer follow-up questions and provide additional insights into potential enhancements further showcased my expertise.

However, I recognize that I could have improved my presentation by including more visual aids. I also did some research about the Persistence System, in the end I tried implementing a JSON persistence system but without success, so I kept the scriptable persistence system.

## Pre Used Assets

I used these assets:

<https://paperhatlizard.itch.io/cryos-mini-gui>

<https://pixel-boy.itch.io/ninja-adventure-asset-pack>

Mainly for images, sprites and fonts. I sliced some sprites and used for GUI Buttons.

Also, some features like the HP bar and the Enemy Animation were already implemented in the Project.