

# Shop System Documentation

## How to Use

1. Attach the ShopSystem script to a GameObject in the UI canvas. Reference both shop and player inventories as objects within the shop's inventory. Add inventory prefabs and link the corresponding scriptable object on the inventory script component.
2. Position the player's inventory on the left and the shop's inventory on the right. Insert a preview panel in between. This panel should display player sprites, along with buy/sell buttons and the corresponding clothing buy/sell costs. This layout can be freely customised.
3. Click on an icon in either inventory grid to select items. A buy/sell button will appear based on the selected inventory: "Buy" for shop items and "Sell" for player inventory items. Additionally, provide a preview of how the clothes will look on the player sprite.

## MVC Principles:

- Model: manages item data and logic.
- View: uses Unity's UI system for organised displays.
- Controller: handles user input.

## Scriptable Objects:

- They're essential for flexible inventory management.
- Enable extensive expansion of inventories and clothing options.

## UI Interaction:

- OnPointerClick for easy item selection.
- UI elements update instantly based on selection.

## Extensible Codebase:

- Built on clean, adaptable code.
- Extendable code following SOLID principles..

#### Editor View for Non-Programmers:

- Variables are logically organised for easy understanding from the editor.
- Simple UI adjustment by modifying ui element references in editor.

#### Thought Process

My thought process during the interview was to aim for a clean scalable solution that could work as the foundation for a system at a bigger scale.

#### Performance Assessment

I believed I achieved the necessary results and achieved my main goal of creating a solid system that is easily scalable in a reasonable amount of time. I managed to resolve most unexpected bugs to create a great quality prototype of the clothes shop. However there is room for improvements, by increasing my understanding of the unity's animator, I could've created a more robust controller, and recognize the visual bugs that I struggle with faster.