

Blue Gravity Interview Task

Clothes Shop Simulation



For this task I got inspiration mainly from Stardew Valley because it is the best recent reference of what a good top-down simulation farming game is these days.

The prototype consists of basically 1 scene containing all the managers and controllers needed to play the game. That includes the whole UI and logic required to simulate the clothes shop, npc interaction, item collection and the inventory.

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The System

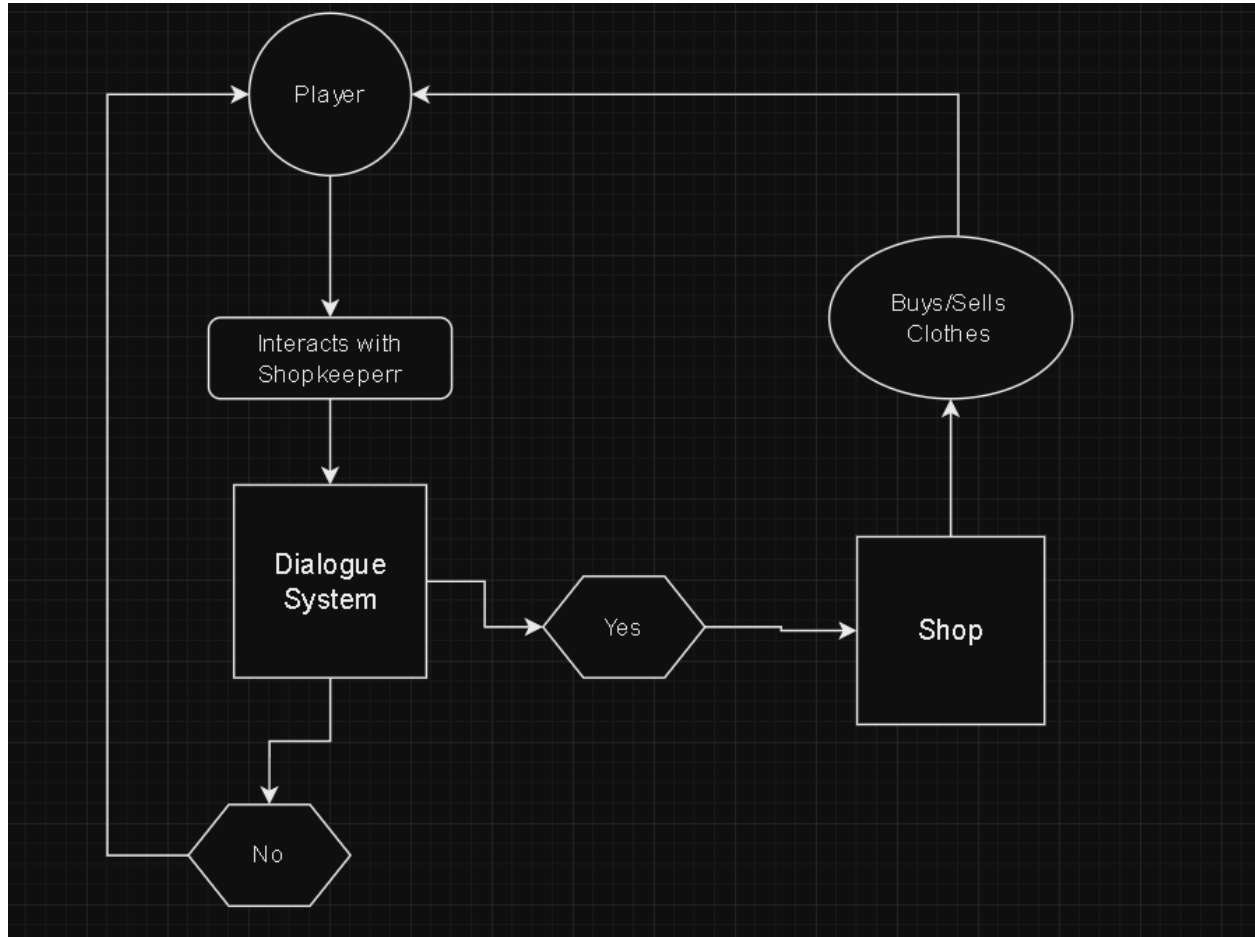
Map

The player can move freely in the map and choose to interact with an NPC and also collect items that are present in the area. Those items are the same as the ones being sold in the shop.



Shop

Once the player interacts with the shopkeeper the following flow happens:



The player can interact with the shopkeeper at any given moment and the Dialogue may or may not present you with a choice of Yes/No to open the shop. Once you open the Shop you can buy/sell the items there, close it and then do it all over again. Your current currency is presente in the top right corner at all times to see if you can/can't buy an item.



The shop list of items shows right above the items you currently have in your inventory.



That way you can see the items that you buy going directly into your inventory and you can also sell them right away by choosing an item of your inventory and clicking on "Sell".



Inventory

All of the items that are placed in your inventory automatically are available in your inventory menu system to equip/unequip.



To sell those items back at the store you may access the [Shop](#) again and drag and drop them into the Sell area as previously mentioned.

Development Process

When I received the task I began planning on how the prototype would look like from the start to finish so I could focus on the main goal of the task (The Cloth Shop task) while also trying to convey the style and basic mechanics of a “Stardew Valley-like” game incorporating other features commonly seen in games of this genre: Your inventory items are visible while buying new items, a dialogue interaction before opening the shop list, a simple but functional dialogue system allowing you to skip the word-by-word presentation of the text and the option to not open the shop in the interaction.

The big systems I focused on were the Inventory and Item interaction with it's UI representations, the Shop which was dealing with the same items the Inventory has and the Player Clothing that applied those items to the player.

Personal Assessment

I believe I achieved the task while programming with good patterns and relationships within the timeframe I had. The systems can improve in some aspects such as encapsulating more interface code within other components to manipulate data and using fewer singletons by structuring the code in a more event-based flow which would be useful for manipulating UI as well. This would reduce dependency among singleton classes. While I typically prefer this approach, implementing it would require more time and I wanted to write the system from scratch to show what I could do in this task instead of reusing code from my personal projects. With that said I believe using singletons is also valid to organize managers/controllers and, with all things considered, I did my best in the organization of the codebase to simulate these systems.

Thank you for this opportunity!

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