

The systems used in this interview task can be broken into the following parts

- Character Controller & character interacts
 - I made use of standard 2d character movement norms in the creation of the script and the animations are driven by horizontal and vertical float values. For character interactions I created a base Intractable Class with an onclick method. All interactable have their own inherited class that uses the onclick method to perform their specific task.
- Items and Inventory.
 - I created an item and Item Container scriptable object class. The item contains values such as name icon sprite value and the ItemContainer stores a list of items. We used this item container to create our inventory system. The inventory system populates a ui grid with all the items we have in the inventory the Inventory is also organizable via click and move
- Dialogue
 - For the dialogue I created two new scriptable objects called Actor and Dialogue. The actor stores a name and portrait while the dialogue stores a list of lines and the actor. We then use the talkInteract script to fire off the required function to display all the text in a line by line and typewriter fashion.
- Buy and Sell
 - For the selling we loop through all the items in the inventory and multiply the value of the items by the count. We then add this value to a global static int CoinCount. Which then updates in the scene
 - For the buying I struggled for quite awhile to create an "equippable item" so opted to fake it instead of using the pre existing code. When you purchase an item in the store it deducts the cost of the item from your Coin Count and then activates it as an equippable Object in the equipment panel.
- Equipment
 - For the equipment panel when you press a button it swaps out the sprite sheet with the corresponding button icon.

My process for this interview task was to identify and decide on the features I wanted to have in the game. I wanted to be able to cut trees, open loot boxes Buy and Sell items and talk to NPCs. I also wanted to do it as a skeleton. I then went through the tasks in order of prerequisites. Can't interact without movement, can't buy and sell without inventory. So I tackled those two first. After completion I began work on the dialogue system and then finally on the selling, buying and equipping.

In Terms of how I think I handled this task overall, I am super happy with the results. The only thing I think I could have really done a lot better in is the buying system. I had all the prerequisite stuff in but when push came to shove i was struggling to tie in my own logic.