There are multiple systems working together, and I'll explain each of them:

- Interaction system: This system is based on the one I made for one of my ongoing projects, but I had to rework it to make it usable in 2D. It uses Interfaces as a base for each interactable object, with an interactor script that detects each object in a specific layer and checks if it contains an IInteractable (Interface Interactable) derivative.

- Shopkeeper System: The shopkeeper NPC has an IInteractable script, but most of the work is handled by a script named ShopManager, everything is controlled by an int array with two numbers, using the first number to identify the "type"; 1 for IDs, 2 for prices, and 3 for quantities (This one's mostly to know if the player has made the purchase), and the second one is used to identify each of the four items in the shop. If the player buys an item, that item's Scriptable Object gets updated to reflect that, using a boolean. That boolean is then checked by the wardrobe system to know if the player is able to equip it (Using Congruence, aka number's theory, to skip over the locked ones.)

- Wardrobe system: This system uses scriptable objects to identify body parts (Clothes), each one having a name, a "shop id" (If the object is purchasable, if it isn't, the ID's a zero.), animation id (Identifier for the animation, usually matches the body part's number.), and 8 animations, which names are formatted the following way:

  [Bodypart]_[Animation-ID]_[Animation-State]_[Direction]

  Example: Clothes_0_Idle_Down
  These animations are required to be stored in the "Resources" folder, as that's the easiest way to swap them without storing them.

Thought Process

First of all, I made the character controller and its animations, at first they were simple, but when I stopped to think about the wardrobe part of it, I came up with the idea of using animations to switch between clothes, so I decided to use blend trees. After finishing that, I focused on bringing to life the wardrobe system, making its core and most of the functional part of it, leaving it robust enough to work on its own, but still subject to expansion when the

other systems are implemented. When that was mostly completed, I decided to take a break to rethink the implementation, and plan the shopkeeper system, and called it a day.
The second day started being productive, because I decided to rework the interaction system, as its previous state was unacceptable for my current standards, then I was dragged out by the tedious work of making each one of the clothe's animations, luckily, this was mostly mindless, and I took that time to come up with a solution for money-making.
That's how the apple trees came into picture, I saw them in the background, and decided to give them a purpose, the ability to grow apples, harvest them, and sell them to the shopkeeper in a friendly and one click solution.

As for my performance during the interview, I think I did well. I finished the game with 16 or so hours to spare, and used most of them to polish up the work done, although, there are a couple of things I would improve, mostly the animations, which came out sloppy.