**BGS Interview: Juliano Giotti Unity Programmer**

**Task: Project Explanation and Personal Assessment**

**System Explanation:**

The task involved creating a functional clothes shop within a 2D simulation game, featuring core functionalities such as player movement, shopkeeper interaction, item buying/selling, and equipping purchased outfits. The game was designed with a top-down view reminiscent of Stardew Valley, using Unity 2022.3.25.f1.

The main components of the system are:

- **PlayerController:** Manages player movement and interactions using Unity's new input system.
- **ShopSystem:** Handles shopkeeper interactions, item transactions, and inventory updates. The player can buy and sell items, with purchased outfits being able to be equipped and displayed on the character.
- **InventorySystem:** Manages the player's inventory and its corresponding UI, including item stacking and slot management. Also manages the inventory of any shopkeeper and what they will sell.
- **UI System:** Provides a user interface for the inventory, shop, and equipment tabs.
- **Animation System:** Ensures equipped items are visually represented on the character through synchronized animations.

**Thought Process:**

My first concern was the time limit, so I created a project timeline to keep myself on track and avoid wasting any time.

I began by outlining the easiest and quickest features and breaking down the task into manageable components. From then, I prioritized the most demanding functionality, which was the Shop and Inventory System, leaving UI polish, sound effects, and environment for the end.

My biggest problem was planning an inventory system that was good enough but not too complicated, so it wouldn't take too much time.

**Personal Assessment:**

Overall, I am pleased with the outcome of this project, mostly because I successfully implemented the required features within the given timeframe, even though I didn’t think I would make it.

One challenge was ensuring smooth animation transitions across all different animators, which I overcame by synchronizing them and using `runtimeAnimatorController` checks.

Another challenge was ensuring that every UI element related to the inventory was displayed and updated correctly.

The biggest challenge for me was to create a good inventory system in under 48 hours of development. It cost me a significant amount of time, and I'm not entirely pleased with the result, mostly because I was focused too much on the deadline and not enough on the project itself.

**Conclusion:**

This project provided a valuable opportunity to demonstrate my Unity programming skills and my ability to work within a defined time frame in a fast-paced environment. I am confident that my contribution would positively impact Blue Gravity Studios, and I really look forward to an opportunity!