

# Junior Unity Programmer Task

During the interview task, I focused on creating a modular inventory system that is both flexible and scalable. The system was designed to handle various item types using item fragments, which can accommodate any defined items such as weapons, consumables, ammo, etc. This approach allows for seamless additions of new items or item types with minimal code adjustments.

The inventory system uses "ItemDefinitions," which are Scriptable Objects defining item data in the Editor. During runtime, "ItemInstances" are created from these definitions, ensuring the original data isn't altered.

The inventory system itself is built to manage item storage, display, and interaction in a modular design. Each item added to the inventory triggers UI updates, reflecting the current state of the inventory. This dynamic system ensures that the player can interact with and manage their items in real-time.

I implemented basic player movement using the new Input System with collision detection to allow the character to navigate the world smoothly. The system supports movement in all directions, with placeholder animations that could be further refined. Ensuring that all collisions work seamlessly was a key aspect of this, as it directly impacts the player's experience.

Overall, I believe I performed well in this task, particularly in designing and implementing the modular inventory system. This approach not only meets the immediate requirements but also provides a strong foundation for future expansion. It was a challenging but rewarding process that allowed me to demonstrate both my technical skills and my ability to think ahead.