Assessment Task

Level Building:

I utilized free assets from the Unity Asset Store to build my level. After adjusting a demo scene for personalization, I used a stone cat as the shop owner and added more props to enrich the environment.

Player Controller:

I used a free asset for the player and its animations but developed a custom character controller script to handle movement and inventory binding.

Shop Interactiopn:

I worked on making the player interact with the shop owner, since my character controller was made with rigidbody2D, I turned the shop owner into a trigger and used a trigger collision to make a prompt appear, so the player as some visual feedback that he can open the store. I made the shop owner handle these interactions so the store will handle everything and if I need to change something later, everything is in the same place.

User Interface (UI):

Using free assets, I created two UI windows: one for the shop and one for the inventory. The shop UI includes item slots and a player selling slot, while the inventory UI holds item slots and four equipment slots (helmets, chests, shields, swords). Despite limited sprites for clothing, the system is scalable for additional slots and item types.

Drag and Drop Inventory:

I implemented a drag-and-drop interface for the inventory, making it functional, simple, and scalable. Scriptable objects were used to manage items, facilitating easy value changes and item tracking.

Equipment System:

I developed a system for equipping items by creating a class that extends the inventory slot class and an enum for gear types. This setup ensures that only specific gear types can be placed in corresponding slots. The player's visual representation updates based on equipped items.

Shop Inventory:

Items are instantiated in the shop by randomly generating items from a pool into empty slots. A gold variable in the player's inventory handles the purchasing mechanism by comparing item prices to the player's current gold.

Conclusion:

Overall, I'm satisfied with my performance, I feel that I was able to make a solid prototype of what was asked. My goal was to try and make everything as more scalable and easier to understand as possible, but I do have to confess that there are certain things that didn't really worked as planned.