The game system is divided into 5 independent, customizable, scalable and replicable systems. Being them;

*- Dialog control with options;*

*- Inventory/Customization;*

*- Shop/Cash system;*

*- Item Creation;*

*- Interface/Creation of lists;*

The central idea is to have a system that meets the task, but at the same time can grow it and make it a complete system for a game, making little or no changes to the base code.

**Dialog Control:**

This system controls the entire fade part of the texts and options, directing events to the created choices, and enabling the creation of dialogs via scriptable object, with the communication made via Action Event, the choices are sent to the creation of the dialog using a struct like base, standardizing and facilitating the shipment.

**Inventory/Customization:**

The inventory system was made independently, where it can be placed on any player, PJ or NPC, its customization system includes the 3 types of equipment, but is easily replicated for more, using the interface (IWearable) as an item delimiter that can be equipped. It also keeps track of the entries and exits of items to your inventory, the methods are named as buying and selling, however the system supports the addition of methods at no cost such as picking up and dropping.

**Shop/Currency System:**

Working in conjunction with the inventory system, the shop works like the “Shopkeeper's Inventory”, but keeps updated references of the customer it is serving. This system already works with a finite stock of objects, making the items purchased from the customer available for sale with an updated price predicted in the items system. In this system, the shopkeeper is seen as a player where his purchases and sales depend on and influence his financial capacity.

**Item Creation:**

This part is more focused on scaling the project than the gameplay itself, the entire inventory, equipment and monetary system is based on the abstract structure of the Item, which contains the basic information for the operation of the other systems without sticking to impersonation of the item type, thus enabling simple creation of other categories like scriptable objects without unnecessary properties but free addition.

**Interface/List Creation:**

The original intention in creating the list creation system was to keep the logical system of a feature from its interface system separate whenever possible, thinking about this an abstract class was created for creating lists, where it folds and molds to meet the different requirements. calls and formats it has with a low level of changes. Highly responsive, customizable and low dependency on external resources. Its communication is simple and preferably done through events, always keeping the information presented up-to-date and accurate.

These systems were applied in a clothing store, but can be replicated in different situations, such as stores of all kinds, chests and storages, dialogue trees and the like.

**Player movement/Input:**

The movement system employed is done in the ne input system, safe and simple, not deserving any special mention of its dependencies because it is a more basic choice.

Were used as input:

**[A][W][S][D] and directional arrows** for movement

**[Q]** to open Inventory

**[E][Numpad Enter]** for interaction

**[F1]** Scene change.

It is **important** to point out one event, I could not find assets that met the two requested demands (Visual customization and TopDown movement), at least for free, so I prioritized the player customization system in the main scene and in a second scene an example of TopDown movement with animations. My goal is to show you my technical mastery while not sacrificing

test progress. Naturally, in ordinary work with assets developed for the task, this will not be an impediment. To change scenes just press [F1] at any time in the application.

**Final utterances.**

First of all, I apologize for the length of this document, as well as for the request to reschedule the deadline, the task was very interesting and initially I did not realize what an opportunity it is to create a very interesting system, I did the best I could with the information and knowledge that I have, I believe I have presented a good result, and due to the unique character of this system, I believe that a slight increase in the suggested size of the document is forgivable.

I am Brazilian, I speak Portuguese fluently, and I have an intermediate/professional level in my proficiency in the English language (I continue studying, so I believe that this year I will be progressing in level), but to create this document I chose to use a translator as an aid tool , I am informing this to the examiner so that it is clear that at this moment I am prioritizing the message and information to be passed on.

Finally, I thank you for the opportunity given and I hope to receive feedback on the work presented, there are and always will be ways to improve a system and your vision is important in this learning process.

Best Regards…

***Igor Sant'Anna***
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***IsantannaGD***