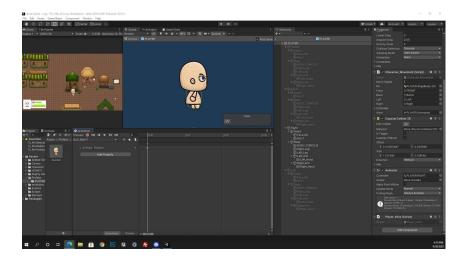
Development of game mechanics top down 4 directions with system of purchase and sale of items.

The development of the system had 4 stages, character movement, interaction with elements of the world and interaction with item store.

At first I chose to develop the character's movement mechanics, developing a very simple movement system with the Character Movement script, and I decided to create 4 distinct game objects to simulate each of the character's 4 directions and use an animation approach with separate game objects so that the character could have his body parts customized in the clothing equipment system, and for that I used unity animation to animate player members and create motion animations. and be able to create transitions between these animations by unity's animator control.

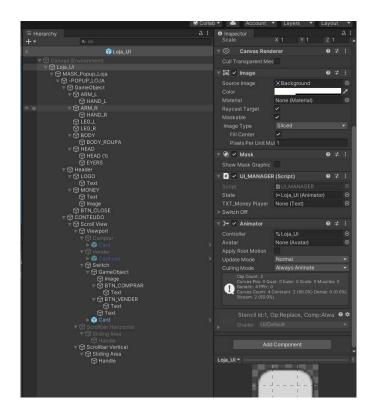


As the player is divided into parts and I should create 4 stop states for each of the different positions I chose to create a system with multiple animation controls and go swapping them via code. so the stop state would be equivalent to that of the animation control set at the current time of the player.

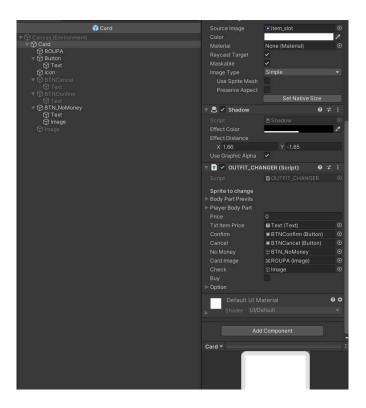
```
movement.y = Input.GetAxisRaw("Vertical");
if(movement.x > 0)
   Anim.runtimeAnimatorController = Controller[3];
   Left.SetActive(false);
   Right.SetActive(true);
   Back.SetActive(false);
    Front.SetActive(false);
   Anim.SetBool("IDLE", false);
   Anim.runtimeAnimatorController = Controller[2];
   Left.SetActive(true);
   Right.SetActive(false);
   Back.SetActive(false);
   Front.SetActive(false);
Anim.SetBool("IDLE", false);
  (movement.y > 0)
   Anim.runtimeAnimatorController = Controller[1];
   Back.SetActive(true);
```

After that I created a camera system to follow the character with a smoothed delay not to give a fixed camera feel, through the cameraFlow script connected in the main camera of the scene.

The store system was divided into 4 steps, creation of the prefab with 3 panels, one for purchase or tro for sale and the selection panel, in which the player decides what he wants to do in the store, then created 2 prefabs, one of sale card of the item and another for purchase of the items, after all set I created UI\_MANAGER script that does the store ui panel view management. After this completed I had to create a Call\_SHOP to activate the display of the store popup in the cen.



For the system of equipping the character was created the OUTFIT CHANGER script that is responsible for purchasing and equipping the item obtained in the player sprite, and finally Created the Player Info script that saves the money and item information of the player.



## **Difficulties**

As the dynamics did not require the creation of inventory or item bank, I ended up choosing to create everything manually and not dynamically because it would be necessary to create this system, but the creation of the prefabs of CARD and UI\_Shop facilitates scaling the system in this way being necessary only the creation of lists of items and items of the player in the game and through them leave the dynamic system.