Interview Task - JMVG

I developed a top-down view farm simulator for the video game, focusing on incorporating some farm-like features. One of the parts that took more effort, not necessarily due to its complexity but rather the time it consumed, was the character customization. This was mainly caused by the character animations.

When developing character customizations in games, it's important to consider that there are numerous options available. Dealing with SpriteSheets involves using a multitude of images, each SpriteSheet having its own set of animations for clothing, hair, or body types.

The system developed for character customization uses ScriptableObjects. This system is somewhat "simple." ScriptableObjects are used to store all information about the animations for each body part, such as "Body," "Hair," and "Clothes." Additionally, a ScriptableObject functions as a template for how the character should be created, and this template is referenced in the code whenever there's a change to the character.

All of this is managed by two scripts: "BodyPartSelector" and "BodyPartsManager." The former manages the body parts of the character and updates the visual and logical selections. The latter script, "BodyPartsManager," synchronizes the different character animations with the ones the player wants or customizes. It uses the "AnimatorOverrideController" to dynamically change animations. Animations are loaded from a project folder called "Resources" based on a specific naming convention.

This is how the character customization system works, and it was one of the parts that took most of my time due to clothing, hair, and character animations.

For the map development, I used the Tilemaps tool and chose a PixelArt style to complement the character's style. I created a small scenario featuring a beach, a cabin, and hills. Within the map, players can interact with various animals and with Alex, the shop owner where they can buy and sell farm items.

I feel that my performance in the test was truly put to the test by the development of the character customization. It's the first time, in my years of experience, that I had to develop such a system. It's not a perfect system as it has some small details, but I feel that it's functional and easy to use when adding new customization items.

Without further ado, I hope you enjoy the small demo I created, and I look forward to staying in touch.

Best regards,

   -   Jose Maria