# Technical Test Performance Report

My thought process and progress in the interview

At the beginning of the test, I took deliberate time to read through everything that was required of the activity and what it would entail. As I worked, I recalled which Unity features could help me accomplish the goal and began researching them. I focused on utilizing the 2D Animation library to create skeleton-animated characters and thus implement clothing changes in a more segmented way.

After having a clear understanding of the system I would develop, I began searching for Assets but none felt suitable for completing the activity. Therefore, I started developing my own assets through vector sketches.
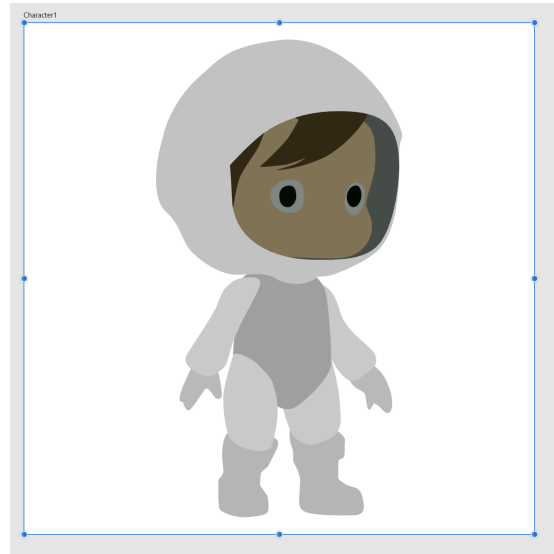
With this sketch, I had the first exposure to Unity's bone configuration system for 2D animation and the initial setup to create the clothing change system.

Therefore, I proceeded to create two character variants to apply in the game, although I had wanted to make three variants but time limitations would not allow for it.

I enjoyed drawing the characters, as this is an activity that helps me think, and it was therefore motivating for me to continue developing them and applying this work to the test.

The drawing process took me a bit longer than I had anticipated, and I recognize that I could have utilized my time better in other aspects.

The architecture I decided to implement was focused on using ScriptableObjects and Controllers to configure subsystems.
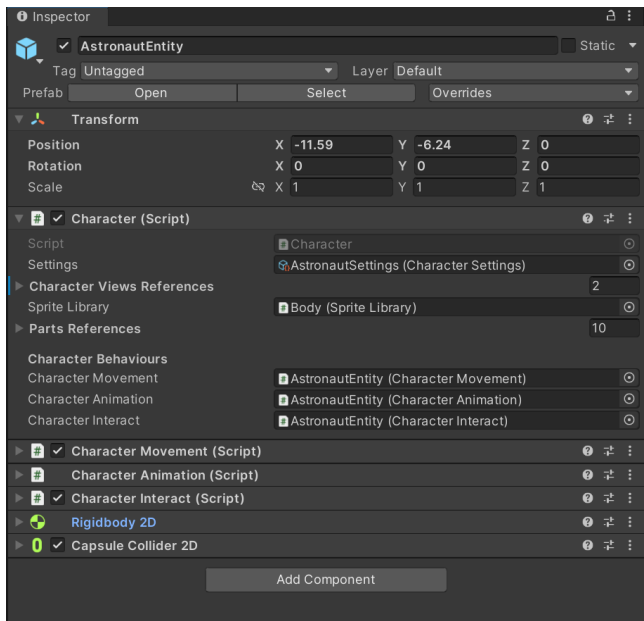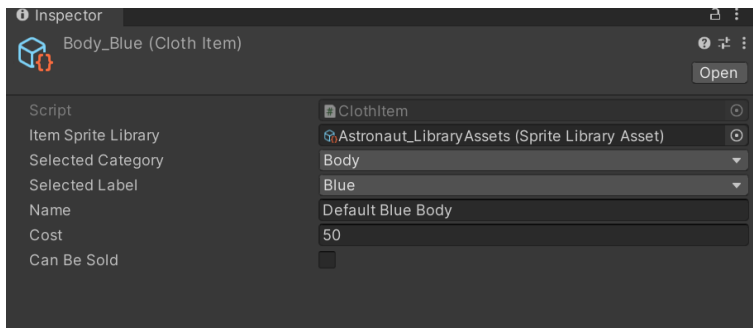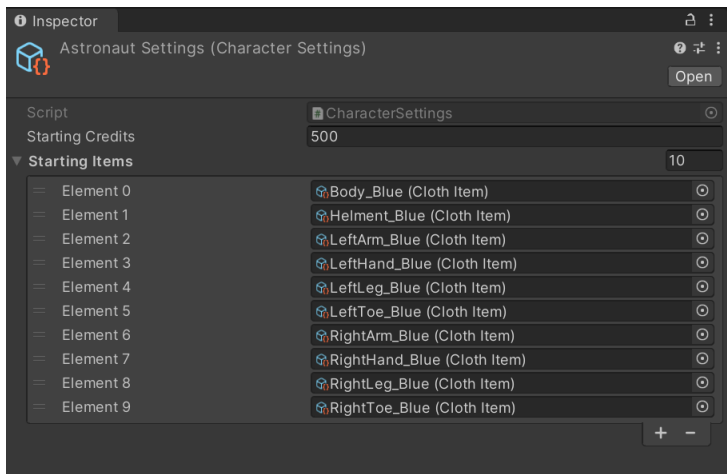
The ScriptableObjects were primarily used in this system simply as data models to preconfigure either the controllers to supply the information or the views to reflect said information.

Personal Evaluation

- I had a disorganized process at first, although I handled it in the best way by advancing miscellaneous elements like the art and researching the best ways to carry out the activity
- I did not manage to maintain the initial architecture I wanted to develop. I tried my best for it to be both scalable and understandable in terms of both the code and integration within the game engine
- I neglected aspects like audio and UI/UX. I believe I could have undoubtedly done a better job in those areas
- I must improve in bone-based animation and research better programs that can aid me in doing so

Game features

Inventory

There are two states:
- When in the shop, the player can use their inventory to sell items to the merchant for a reduced price, which is a fee that the merchant charges. Only tradeable items will be displayed in this mode
- When using the inventory outside of the shop, the player will be able to view all purchased and available clothing items. By clicking on one, the player's corresponding body part will automatically change to that selection

If a player sells a piece of equipment they currently have equipped, the slot will reset to its default state (the blue starting outfit).

Shop

The shop has the ability to sell and buy items with a tax rate applied to purchases. The shop is configured to scale its item database, and like the inventory it recycles any GameObjects it instantiates.

If the player closes the shop while their inventory is open, it will also close the inventory since the inventory is in trade mode when the shop interface is active.

Thank you for the opportunity to take this test, I had fun and learned some knowledge along the way.

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Have a nice day,
— David Pino

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