Unity Project Documentation – Interactive Shop and Wardrobe System

Introduction:

This document details the development process of an interactive shop and wardrobe system in Unity (version 2021.3.2f1), focusing on player interaction, UI development, and integration of assets. The objective was to create a seamless experience for a player to interact with in-game objects, change outfits, and engage with a shop interface.

After playing "Little Sim World", I wanted to do something that would work in a similar way, form the movement controls to the interactions to the way the shop worked, so that's what I strived for here, unfortunately I feel that a lot of systems are left unfinished due to the 48h time constraint.

Development Process:

1. **Initial Setup**:
   a. Established a GitHub repository and initiated a Unity project.
   b. Created a README file for guidance and project tracking, considering the interview nature of the task.
2. **Player and Interaction Mechanics:**
   a. Implemented basic player movement and interaction with placeholder objects.
   b. Developed an 'IInteractable' interface for versatile object interactions.
   c. Revised the interaction system to avoid excessive memory usage.
3. **Movement System Overhaul:**
   a. Integrated the NavMeshPlus extension for intuitive player navigation.
   b. Enhanced movement controls with click-based and keyboard inputs.
4. **Visual Enhancement and Asset Integration:**
   a. Imported 2D sprites and implemented skeletal animation for dynamic character visuals.
   b. Utilized a fantasy tileset for environment design, focusing on aesthetics and functionality.
5. **Mouse Interaction and UI Improvements:**
   a. Refined interactable objects with visual outlines and interaction prompts.
   b. Simplified the outline implementation process by using pre-made assets.
   c. Created a separate script to handle all mouse Inputs and communicate them to the player.
6. **Shop and Wardrobe Interface:**
   a. Implemented a coin system with UI feedback.
   b. Faced and resolved sprite centering issues in the shop UI.
   c. Applied a strategy pattern for wardrobe and shop functionality, ensuring efficient code reuse.

Personal Assessment:

Reflecting on the project, I believe my performance was effective, particularly in adapting to challenges and integrating diverse functionalities within the limited time frame. The decision to write all code from scratch enhanced my problem-solving skills. However, it also affected the time it took to complete each individual task I set for myself, although I'm happy with the results I've been able to obtain.