CSE-411L: INTRO TO GAME DEVELOPMENT LAB

Lab 9 & Quiz: Unity Animations and Animator

Objective:
In this lab we further explored the Unity API.

Tasks:
Here's a refined version of your instructions with improved clarity and grammar:

1) **Set Up the Scene**:
   a) Open or create a new scene in Unity.
   b) In this scene, create your game layout and add a main panel with a "Play" button.
2) **Pause the Game on Start**:
   a) Ensure the game is paused when it starts.
   b) When the "Play" button is clicked:
   c) Animate the main panel to slide up and out of the main camera's view.
   d) Resume the game.
3) **Download Assets**:
   a) Go to [Mixamo](#) and download a character model along with basic animations like **walk** and **idle**.
4) **Convert to Humanoid**:
   a) Convert the character and animations to **Humanoid** rig in Unity.
   b) (See conversion method on the next page).
5) **Set Up Animator Controller**:
   a) Create a new **Animator Controller** for the character.
   b) This character will act as the main player in your game.
6) **Idle and Walk Animation**:
   a) Set the default animation state of the player to **Idle**.
   b) Configure the animator so that pressing W, A, S, or D will:
   c) Trigger the **Walk** animation.
   d) Move the player in the corresponding direction.
7) **Design the Game Scene**:
   a) Add a **Plane** as the ground.
   b) Place the player and a **Ball** on the plane.
   c) Apply a **Rigidbody** and **Bouncy Physics Material** to the ball.
   d) Ensure the player can push the ball towards a goal on the plane.
8) **Goal Mechanic**:
   a) Add a **Goal** object to the scene.
   b) The goal should have a **color-changing animation**.
   c) When the ball reaches the goal:
   d) Display the UI message: **"Game Complete!"**
   e) End the game.

9) **Game Over Mechanic**:
   a) Add an **Invisible Collider** underneath the plane.
   b) If the ball falls off the plane and collides with this object:
   c) Display the UI message: **"Game Over, you lose!"**
   d) End the game.

Method to convert character animations to humanoid and optimize them for unity:

1) **For the downloaded character do the following settings and after these settings go to the material table and extract textures and materials**
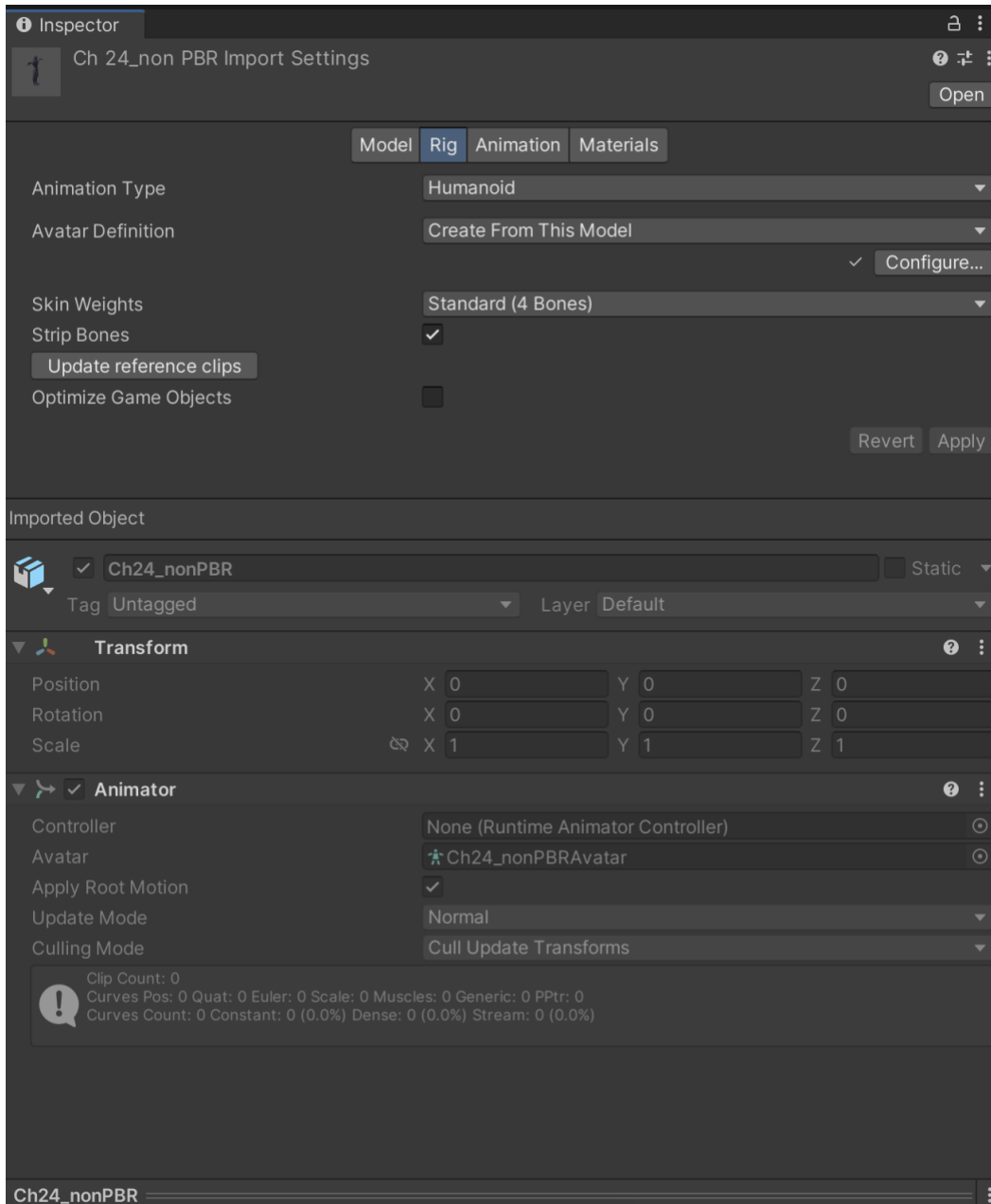
2) **For the walk animation "DO NOT CHECK IN PLACE ON MIXAMO AND DOWNLOAD WITHOUT SKIN" and then download as their in-place animations has an issue they don't work properly in Unity and then do the same settings for the file like the above character one (ignore the material ones now). And then go to animation tab and check these settings**
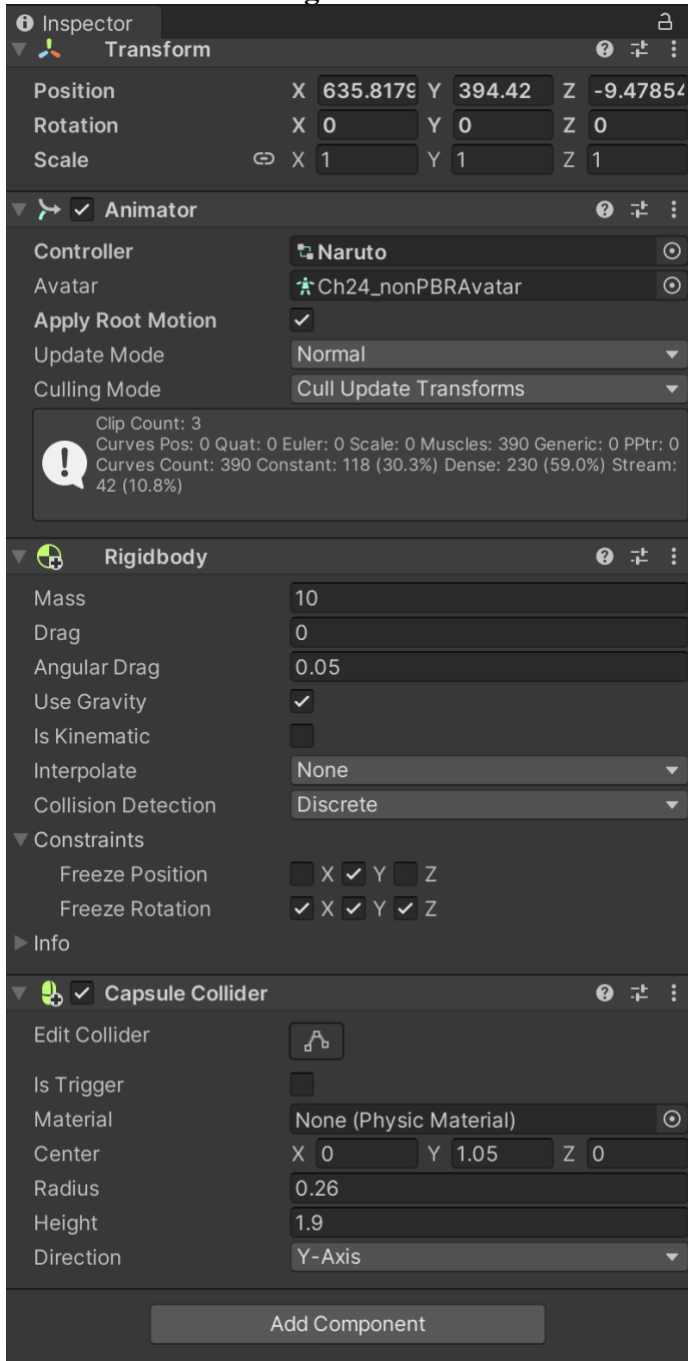
3) When you create your character add these and make the capsule collider a little above the character feet so it could move