Lab # 09

Unity Animations and Animator



Fall 2024

**CSE-411L Intro to Game Development Lab**

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“On my honor, as a student of the University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work”

Submitted to:

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(15 Dec 2024)

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1. **Scene Setup:**
   1. Created a new Unity scene and designed the game layout.
   2. Added a main panel with a Play button as the central UI element.
2. **Game Paused on Start:**
   1. Ensured the game starts in a paused state.
   2. Configured the Play button to:
   3. Animate the main panel to slide out of the main camera’s view.
   4. Resume the game upon interaction.
3. **Character Model and Animations:**
   1. Downloaded a character model and basic animations (Walk and Idle) from Mixamo.
4. **Conversion to Humanoid Rig:**
   1. Converted the character and animations to Unity’s Humanoid rig, ensuring compatibility with Unity’s Animator system.
5. **Animator Controller:**
   1. Created a new Animator Controller for the character to manage animation states.
   2. Configured the controller to use the Idle animation as the default state.
6. **Idle and Walk Animations:**
   1. Set up controls for the character:
   2. Pressing W, A, S, or D triggers the Walk animation and moves the player in the corresponding direction.
7. **Game Scene Design:**
   1. Added a Plane as the ground and placed the player and a Ball on it.
   2. Applied a Rigidbody and Bouncy Physics Material to the ball for realistic interactions.
   3. Configured the player to push the ball toward a designated goal.
8. **Goal Mechanic:**
   1. Created a Goal object with a color-changing animation to signify interactivity.
   2. Implemented functionality so that when the ball reaches the goal:
   3. A UI message, “Game Complete!”, is displayed.
   4. The game ends.
9. **Game Over Mechanic:**
   1. Added an Invisible Collider underneath the plane to detect if the ball falls off.
   2. Implemented logic such that if the ball collides with this object:
   3. A UI message, “Game Over, you lose!”, is displayed.
   4. The game ends.