Features Attempted:

1. Player Movement
    a. Avatar represented by llearn texture
    b. Movement is controlled using WASD
    c. Avatar turns and faces movement direction
    d. Avatar comes to a rapid stop when keys are released
    e. Movement controls still work when avatar is off the ground
    f. When avatar is off the ground and movement keys are released, the player continues moving at the same horizontal speed
2. Jumping
    a. When player is on the ground and not inside a teleporter the avatar initiates a jump
    b. Nothing happens if the avatar is in the air and the jump key is pressed
    c. The jump moves upwards to a designer specified maximum height
    d. The avatar is affected by gravity as a constant downwards force
    e. When the avatar hits the ground or platform from above the stop falling
    f. The avatar's downward velocity is limited to a designer specified maximum value
3. Trampolines
    a. If the avatar collides with a trampoline from above, an upwards impulse will be added to them.
    b. The players movement controls operate as normal when on a trampoline
4. Checkpoints
    a. Checkpoints are represented by a coloured space the size of the avatar, distinct from teleporters.
    b. If the avatar is destroyed they will restart the level at the last checkpoint they collided with
    c. The avatar can move through checkpoints without obstruction
5. Lasers:
    a. When the avatar collides with a laser they are destroyed and must restart level from the beginning or the last checkpoint.
6. Switches
    a. When the avatar collides with a switch it toggles the associated lasers state
    b. The switch changes color to represent it being on or off
7. Moving platforms Vertical
    a. Vertical Moving platforms move along their y-axis only
    b. Moving platforms move at a designer specified speed
    c. Different Platforms may move at different speeds
    d. If the player collides a vertical moving platform the player moves up and down with the platform and still able to use their movement controls and jump
8. Moving Platforms Horizontal
    a. Platforms only move along the x and z axis
    b. Moving platforms move at a designer specified speed
    c. Different platforms may move at different speeds

    d. If the player collides with a horizontal moving platform, they should move horizontally with it, but still be able to use their movements controls and jump.
9. Camera Control
    a. The camera moves to keep they player avatar in the center of the screen
    b. Moving the mouse horizontally rotates the camera left/right around the avatar
    c. Moving the mouse vertically rotates the camera up/down around the avatar
10. Teleporters and Scene Management
    a. Each level contains a teleporter, represented as a region of designer specified coloured space the size of the avatar distinct from the checkpoints
    b. The avatar can move through the teleporter without obstruction
    c. If the player presses Space while the avatar is inside the teleporter they are teleported to the beginning of a different level
11. Analytics
    a. Creates a log row when avatar touches a checkpoint
    b. Creates a log row when the player avatar dies
    c. Creates a log row when the player uses a teleporter