Adding Sound to Your Roll-a-Ball Game in Unity

Adding sound to your game enhances immersion, making it more engaging and providing important audio cues for gameplay elements and storytelling. In this tutorial, you will add ambient music, pickup sounds, and a game-over sound effect.

Step 1: Adding Background Music

1. Open your Unity scene.
2. In the **Hierarchy**, right-click and select **Create Empty**.
3. Rename the new GameObject **BackgroundMusic**.
4. Click **Add Component** and select **Audio Source**.
5. Assign your chosen background music clip to the **AudioClip** field.
6. Check **Play on Awake** to ensure the music starts when the game begins.
7. Check **Loop** so the music plays continuously.
8. Adjust the **Volume** as needed.

Step 2: Adding Pickup Sound Effects

1. Locate your **PlayerController** script.
2. Add an **AudioSource** component to the Player GameObject:

```
private AudioSource audioSource;

void Awake()
{
    audioSource = GetComponent<AudioSource>();
}
```

3. Drag and drop your pickup sound effect into the **Audio Source** component.
4. Modify the pickup function to play the sound when collecting an object:

```
void OnTriggerEnter(Collider other)
{
    if (other.gameObject.CompareTag("Pickup"))
    {
        audioSource.Play();
        other.gameObject.SetActive(false);
    }
}
```

Step 3: Adding a Game-Over Sound

1. Since the **Player** GameObject is destroyed upon losing, the sound must play from another GameObject.
2. Locate the **Enemy** GameObject in the **Hierarchy**.
3. Add an **Audio Source** component to the **Enemy**.
4. Assign a game-over sound effect to the **AudioClip** field.
5. Modify the collision function to play the sound when the player loses:

```
void OnCollisionEnter(Collision collision)
{
    if (collision.gameObject.CompareTag("Player"))
    {
        GetComponent<AudioSource>().Play();
        Destroy(collision.gameObject);
    }
}
```

Bonus: Additional Sound Effects

- **Win Sound**: Play a sound when the win condition is met by adding an audio source to the winning function.
- **Wall Collision Sound**: Attach an audio source to walls and use collision detection to trigger sounds.

These steps will help you enhance your Roll-a-Ball game with immersive audio feedback. Have fun experimenting with different sounds to create a unique experience!