Aror University of Art, Architecture, Design and Heritage
SUKKUR,Sindh
Department of Multimedia and Gaming
Course: Game Programming CSC-221 (Practical)
Instructor: Engr. Fatima Jaffar

Lab No. 05

Objective:

Add background sound on objects:

Suppose we want to add sound effect to the ball, that if it hits something, a sound plays.

Step 1: Create an audio source in ball script

```
public AudioSource hitsound;
```

Step 2: In start() method assign the component to the variable "hitsound"

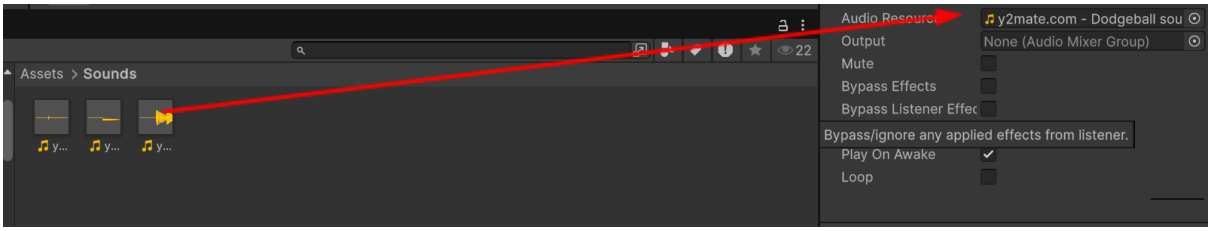
```
void Start()
{
    hitsound = GetComponent<AudioSource>();
}
```

Step 3: We want if the ball collides with something the sound plays, so we will have to write its code in the onCollision function.

```
private void OnCollisionEnter(Collision collision)
{
    hitsound.Play();
}
```

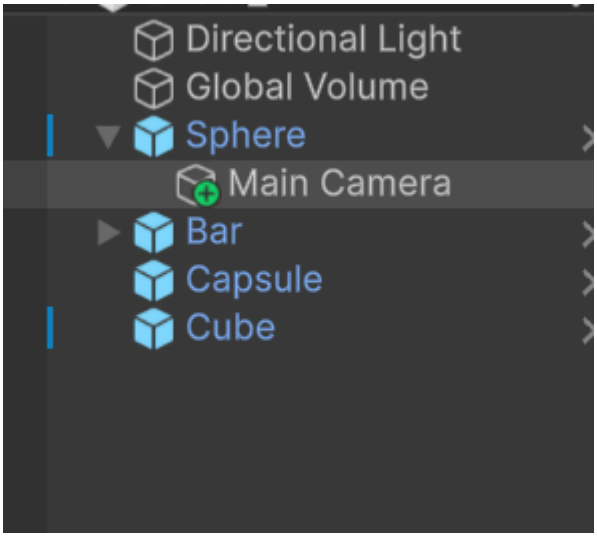
In the unity Editor:

- You need to add component to the sphere,
- The component Should be Audio Source
- Then add your sound clip from assets to component

- 

Moving Camera As game object moves:

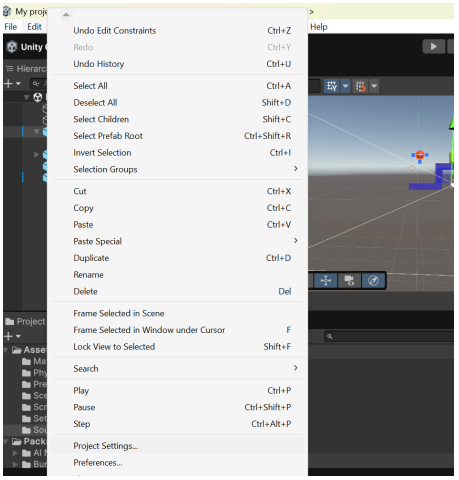
- Here we want to move the camera as the ball moves
- You just need to drag and drop the main camera on that object

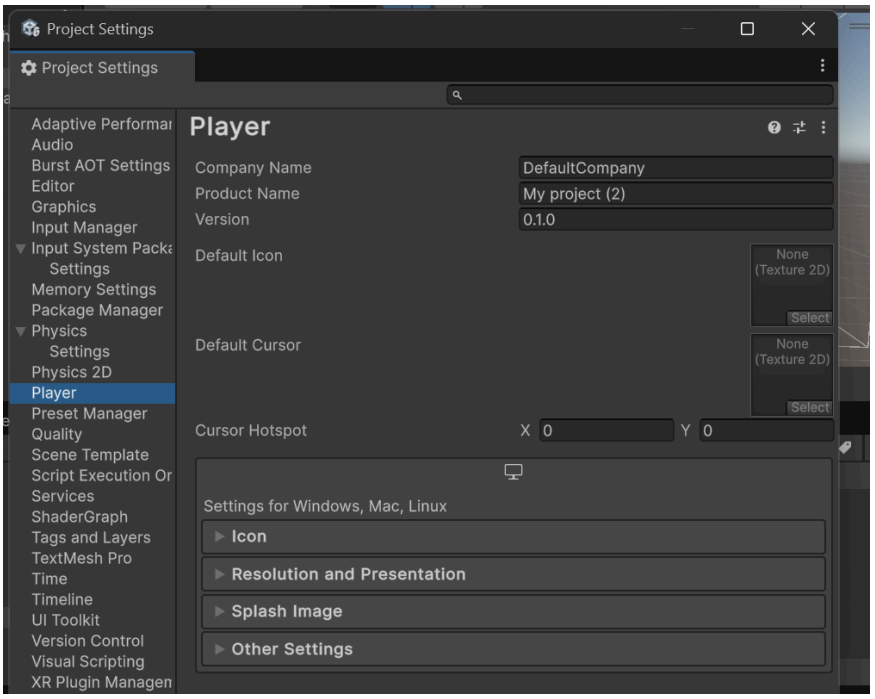


- But you will notice as the ball rotates, the camera rotates as well.

Saving and Publishing Your First Game:

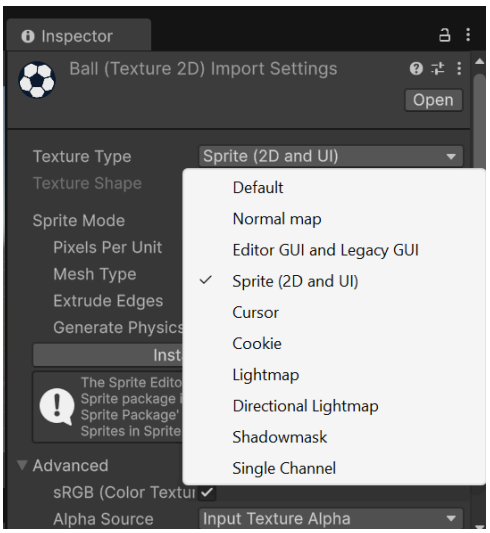
Goto Edit Project Settings



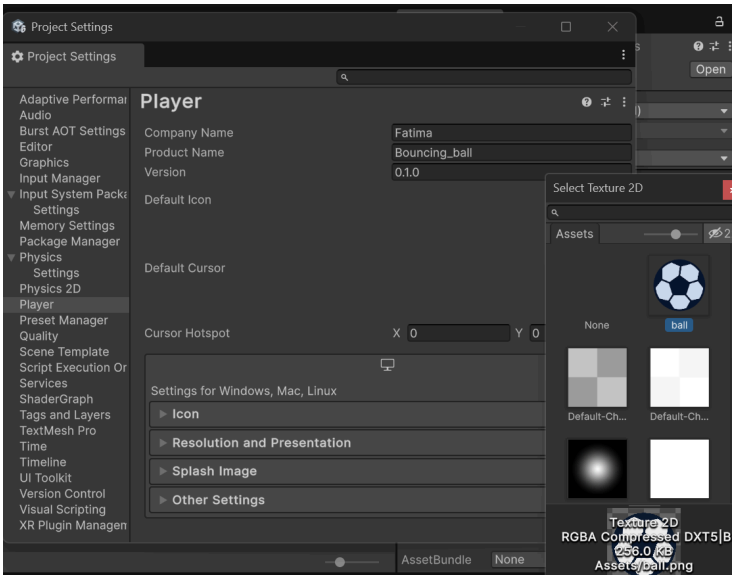


Goto player

- Add your company name
- Game name
- Add an icon image to assets
- In the image properties, choose Sprite 2D in texture type

- 

- Now in Project Settings select your image from default icons list

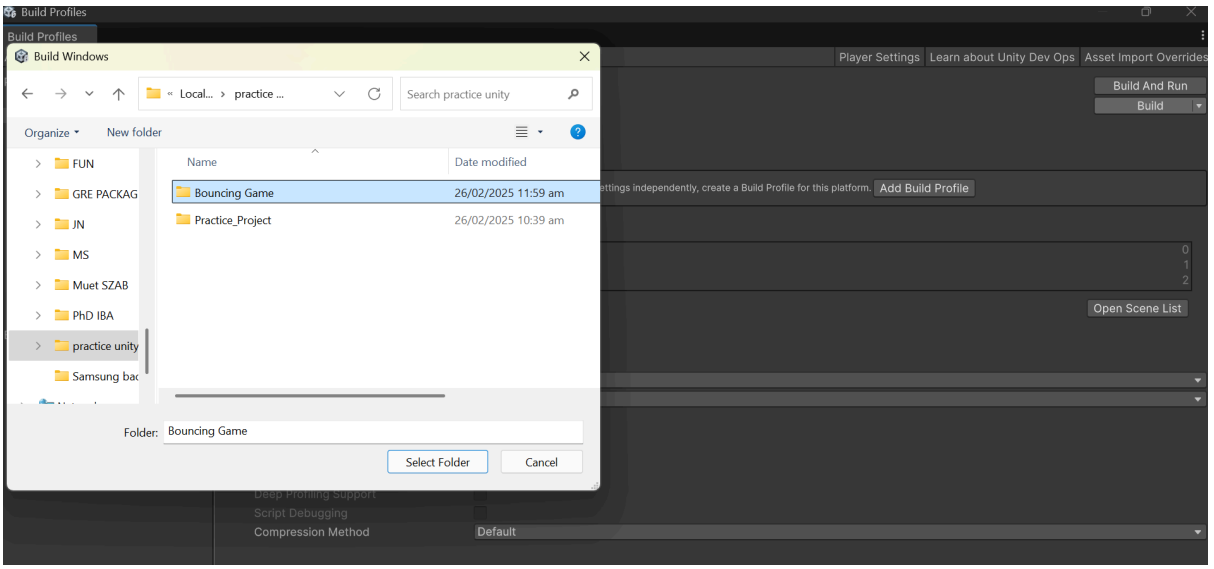
- 

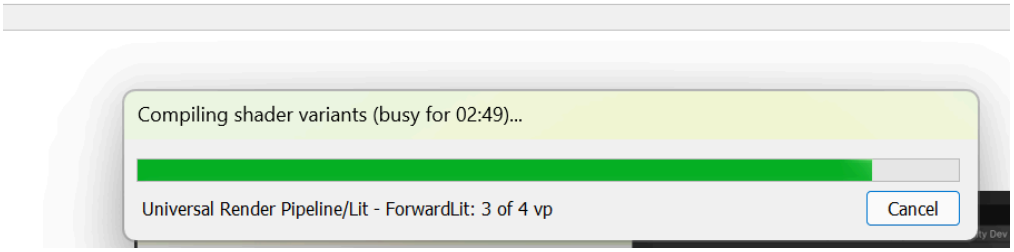
- After saving the properties

- Goto files Build Settings

- Choose for what platform you are building the game

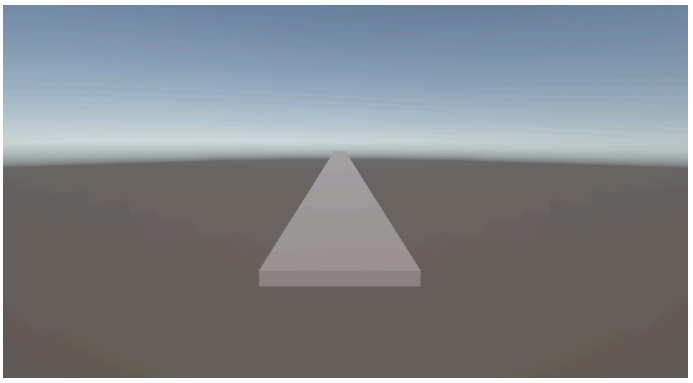
- Then click build

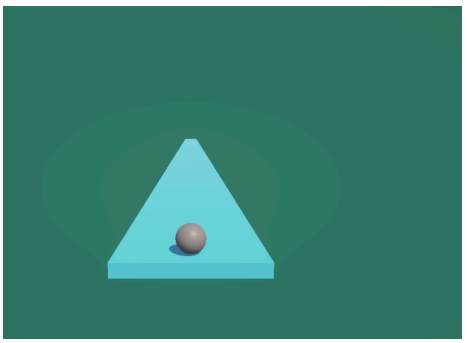




Creating a Running game

- Create a new project, name it running_game or any name you want.
- First you have to create a road to run on, adjust the tranformations so that it looks like this

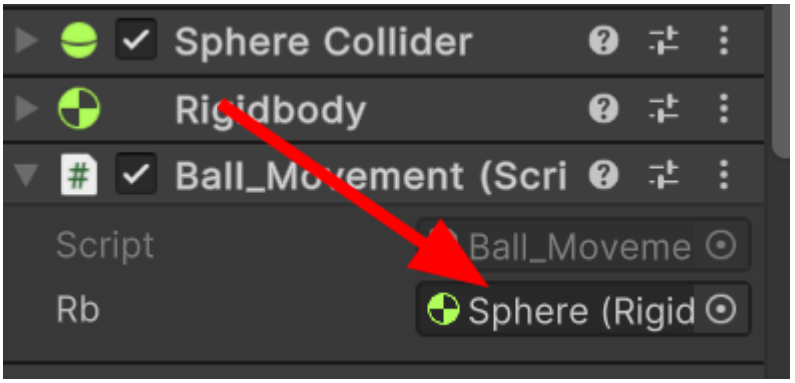




- For ball movement, we need to script it
- So add script to the ballA
- Create an object of RigidBody and add a force in z direction

```
public Rigidbody rb;
// Start is called once before the first execution of Update after the MonoBehaviour is created
Unity Message | 0 references
void Start()
{
    rb.AddForce(0f, 0f, 100f);
}
```

- Drag and drop the rigidbody component to the object in unity.



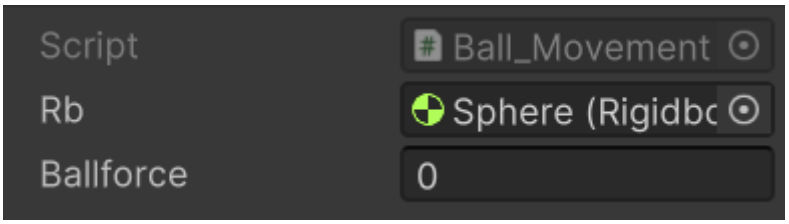
- The ball will start moving on the road.

```
void Update()
{
    rb.AddForce(0f, 0f, 10f);
}
```

- Adding physics property and run the game

Adding a Variable force to the ball

```
rb.AddForce(0f, 0f, ballforce);
```



Now attach camera to the ball: move camera as the ball moves:

- Create a script for camera

```
public class CameraScript : MonoBehaviour
{
    public Transform position_of_ball;
    // Start is called once before the first execution of Update after the MonoBehaviour is created
    Unity Message | 0 references
    void Start()
    {

    }

    // Update is called once per frame
    Unity Message | 0 references
    void Update()
    {
        transform.position=position_of_ball.position;
    }
}
```

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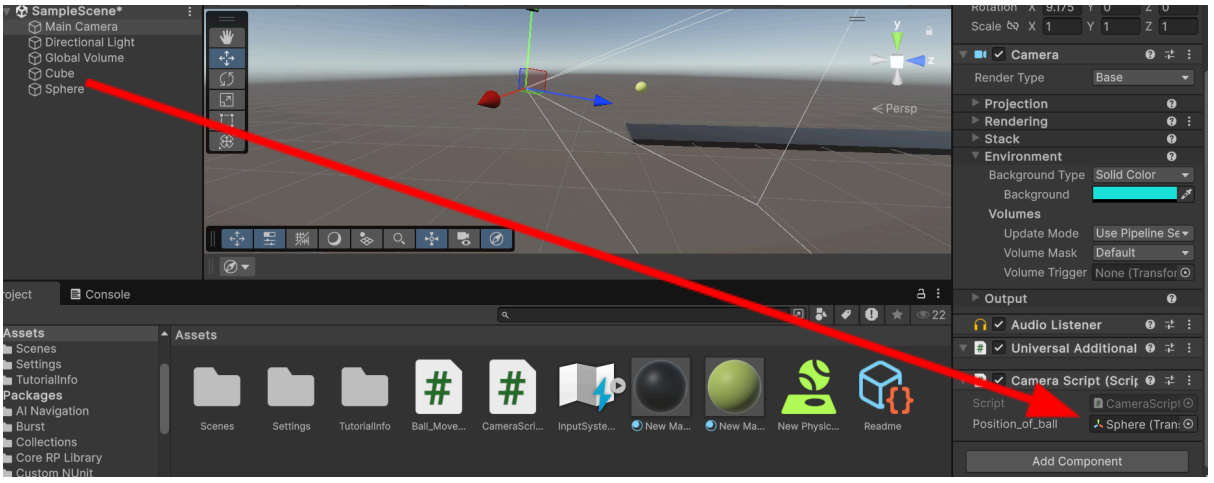

Tasks:

1. add jumping, left right movement and sound effects to the game
2. Create levels and game over mechanisms