

Date:12/11/2020

## Practical No. 9

**Aim :** Develop a 3D Roll a Ball Game in Unity Game Engine<https://unity3d.com/learn/tutorials/s/roll-ball-tutorial>

## code

## 1. Player-Controller.cs file

```
1 using System.Collections;
2 using System.Collections.Generic;
3 using UnityEngine.UI;
4 using UnityEngine;
5
6 public class controller : MonoBehaviour {
7     public float speed;
8     private Rigidbody rb;
9     public Text counttext;
10    private int count;
11    public Text wint;
12
13    void Start () {
14        rb = GetComponent<Rigidbody> ();
15        count = 0;
16        setttext ();
17        wint.text = "";
18    }
19
20    void FixedUpdate () {
21        //For Phone Motion Sensor Controls
22        float moveHorizontal=Input.acceleration.x;
23        float moveVertical = Input.acceleration.y;
24        // For PC Keyboard controls
25        //float moveHorizontal=Input.GetAxis("Horizontal");
26        //float moveVertical=Input.GetAxis("Vertical");
27        Vector3 Movement = new Vector3
28        ↵ (moveHorizontal,0.0f,moveVertical);
29        rb.AddForce (Movement*speed);
30
31    void OnTriggerEnter(Collider other)
```

```
31 {
32     if (other.gameObject.CompareTag ("pickup"))
33     {
34         other.gameObject.SetActive (false);
35         count += 1;
36         setttext ();
37
38     }
39 }
40 void setttext(){
41     counttext.text = "Count :" + count.ToString();
42     if (count >= 20)
43         wint.text = "You Win";
44 }
45 }
```

## 2. Camera-Controller.cs file

```
1 using System.Collections;
2 using System.Collections.Generic;
3 using UnityEngine;
4
5 public class cameracontroller : MonoBehaviour {
6     public GameObject player;
7     private Vector3 offset;
8
9     void Start () {
10         offset = transform.position - player.transform.position;
11
12     }
13
14     void LateUpdate () {
15         transform.position = player.transform.position + offset;
16     }
17 }
```

## 3. Rotator.cs file

```
1 using System.Collections;
2 using System.Collections.Generic;
```

```
3 using UnityEngine;
4
5 public class Rotator : MonoBehaviour {
6
7     void Update () {
8         transform.Rotate (new Vector3 (15, 30, 45) * Time.deltaTime);
9     }
10 }
```

## Output

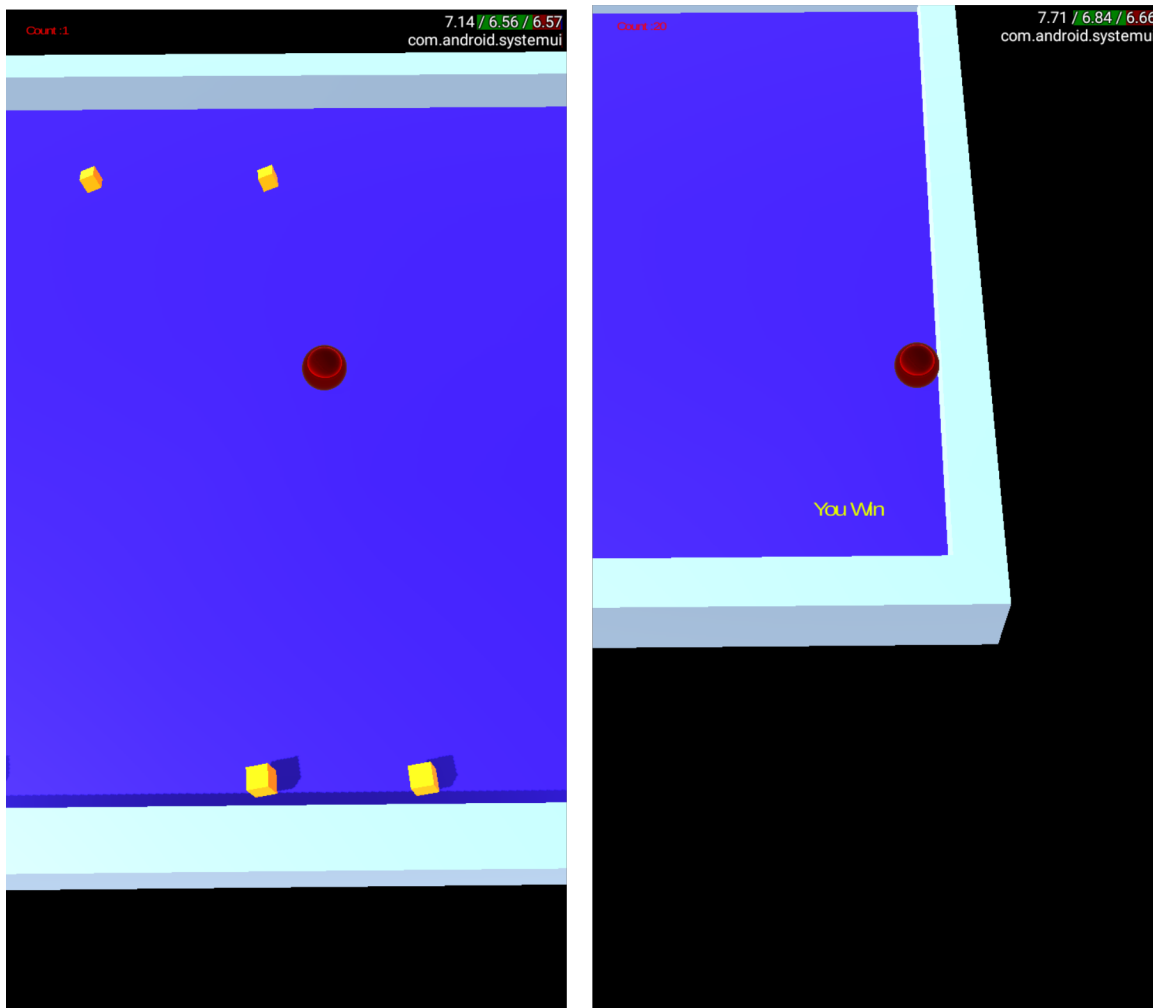


Figure 1: Roll a Ball On Android

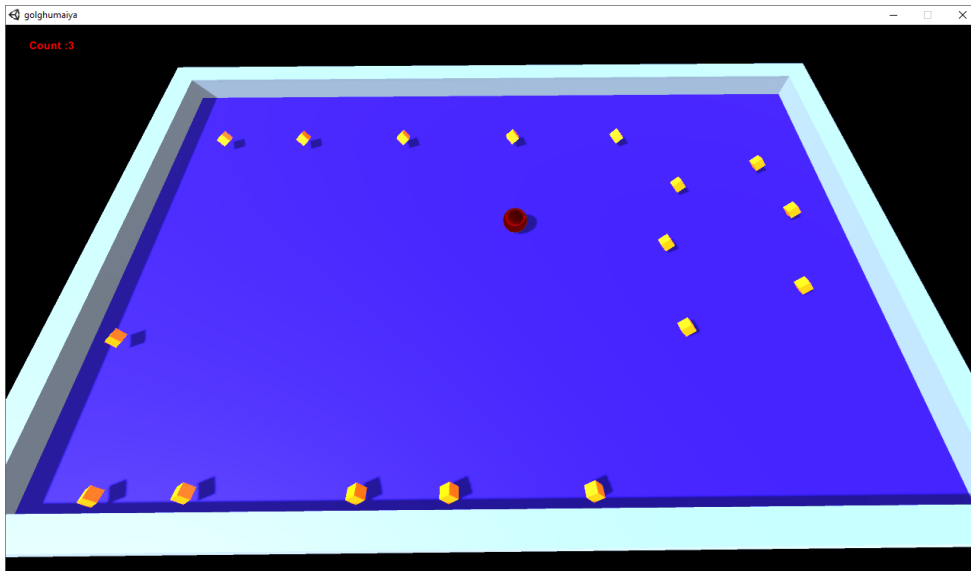


Figure 2: Roll a Ball On Windows

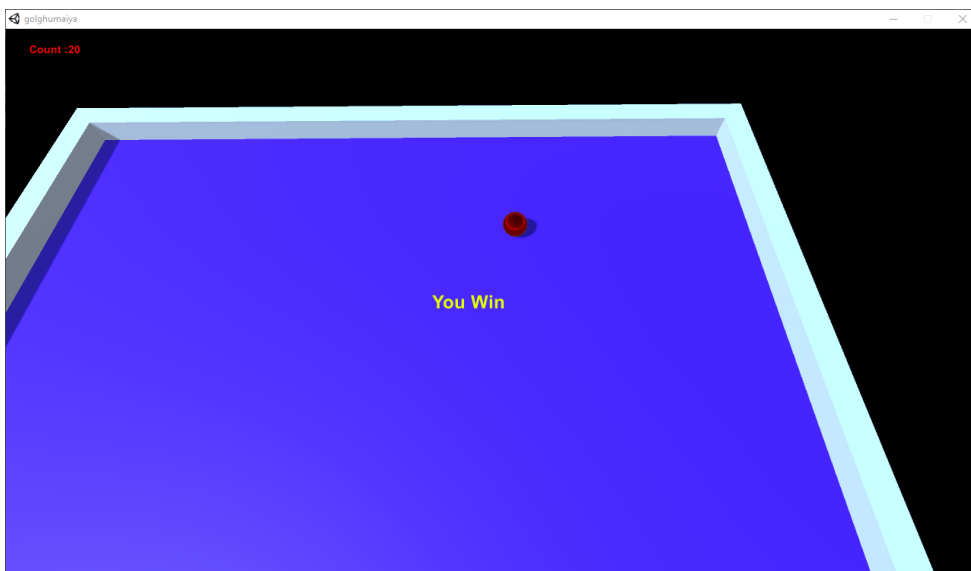


Figure 3: Roll a Ball On Windows End Screen