

Game Developmet

How to Start a Multiplayer Game→ 2 player for this Lab

- 1- Make a new 3D Project name as "MyMultiPlayerGame"
- 2- Goto asset store and download asset
<https://assetstore.unity.com/packages/tools/network/pun-2-free-119922>
- 3- Download and import it to your project through package manager (uncheck demo files)
- 4- Goto <https://www.photonengine.com>, make an account and sign in
- 5- Register your app (give PUN in Photon SDK) and give app ID to project photon ID Launcher in unity
- 6- Make a new scene and save it as Game
- 7- Make an empty gameobject as **Player** and make a cube its child.
- 8- Make new Folder name as **Resources**
- 9- Save this Player as prefab in Resources Folder and delete from hierarchy
- 10- Attach a PhotonView built in script to Player prefab
- 11- Add the following script to another empty gameobject name as **Launcher**

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;
using Photon.Pun;

public class Launcher : MonoBehaviourPunCallbacks
{
    public PhotonView playerPrefab;
    // Start is called before the first frame update
    void Start()
    {
        //try to connect
        PhotonNetwork.ConnectUsingSettings();
    }

    public override void OnConnectedToMaster()
    {
        //if we connected
        Debug.Log("connected to Master");
        PhotonNetwork.JoinRandomOrCreateRoom();
    }

    public override void OnJoinedRoom()
    {
        Debug.Log("Joined the room successfully");
        PhotonNetwork.Instantiate(playerPrefab.name, Vector3.zero, Quaternion.identity);
    }
}
```

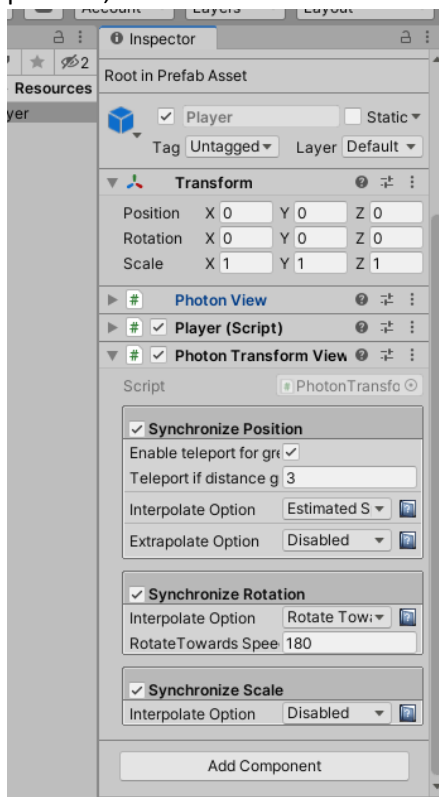
- 12- Make sure to change the MonoBehaviour to MonoBehaviourPunCallbacks using Photo.Pun;
- 13- Drag and drop the player prefab to the script
- 14- Go to File Build settings, Add the scene to built settings
- 15- Go to player settings and in Player options change the resolution to windowed 680 by 480
- 16- Now Build the scene to a Build folder and run the exe file.
- 17- A window will open, also click the play mode in unity editor, you will see two players appear in hierarchy.
- 18- Now add following Player.cs script to Player prefab

```

1  using System.Collections;
2  using System.Collections.Generic;
3  using UnityEngine;
4  using Photon.Pun;
5  public class Player : MonoBehaviourPunCallbacks
6  {
7      // Start is called before the first frame update
8      void Start()
9      {
10     }
11
12     // Update is called once per frame
13     void Update()
14     {
15         if(photonView.IsMine)
16         {
17             //this is the local client
18             float x = Input.GetAxis("Horizontal") * 10f * Time.deltaTime;
19             float z = Input.GetAxis("Vertical") * 10f * Time.deltaTime;
20             transform.Translate(x, 0, z);
21         }
22     }
23 }
24
25
26

```

19- Also attach built in script PhotonTransformView to Player prefab and enable Synchronize position, rotation and scale as shown below:



20- Build the project again and test if build file and play mode behaves as two players or not.

ALL THE BEST!!