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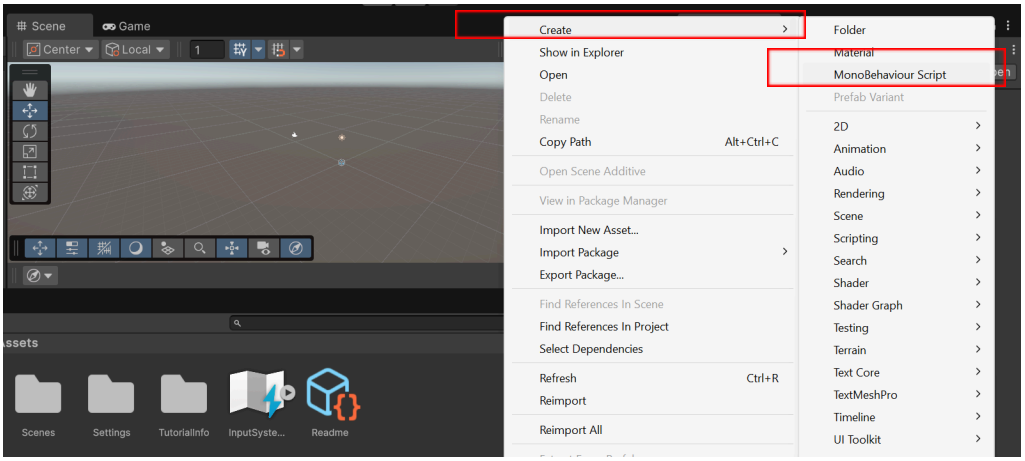
Department of Multimedia and Gaming
Course: Game Programming CSC-221 (Practical)
Instructor: Engr. Fatima Jaffar

Lab No. 04

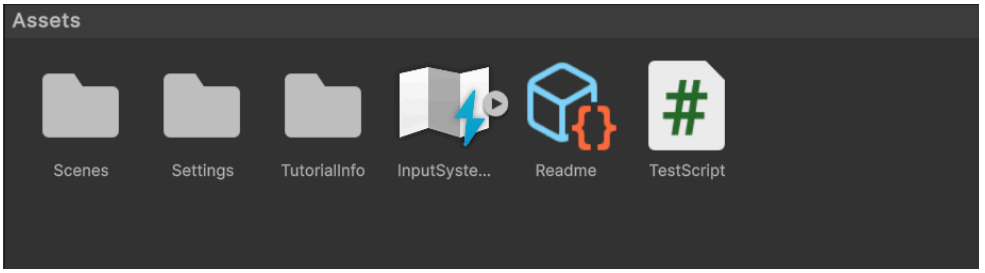
Objective: C# scripting for game development

1. Understanding basic C# functions in Unity

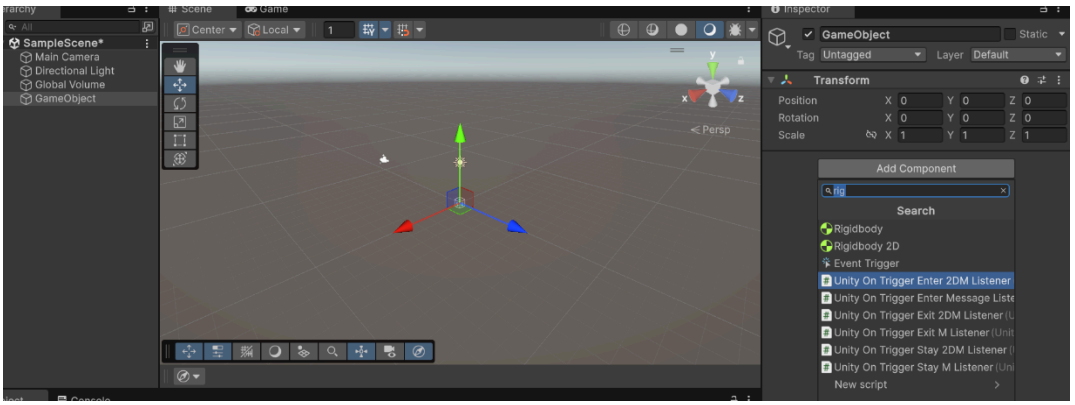
To create a new C# Script in unity, you need to right click in the assets, and click create a MonoBehaviour Script, you can rename it if you want



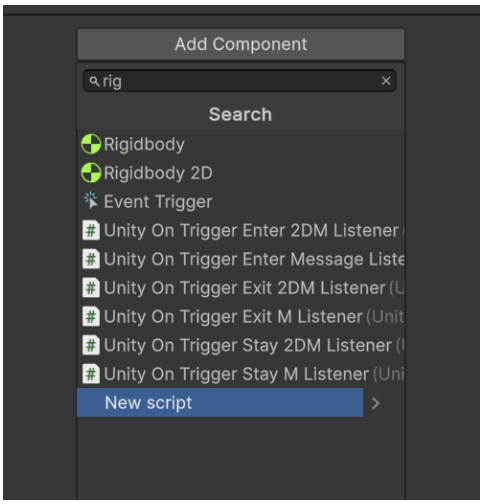
- It will create a new C# file in the assets and will be visible in the assets pane.



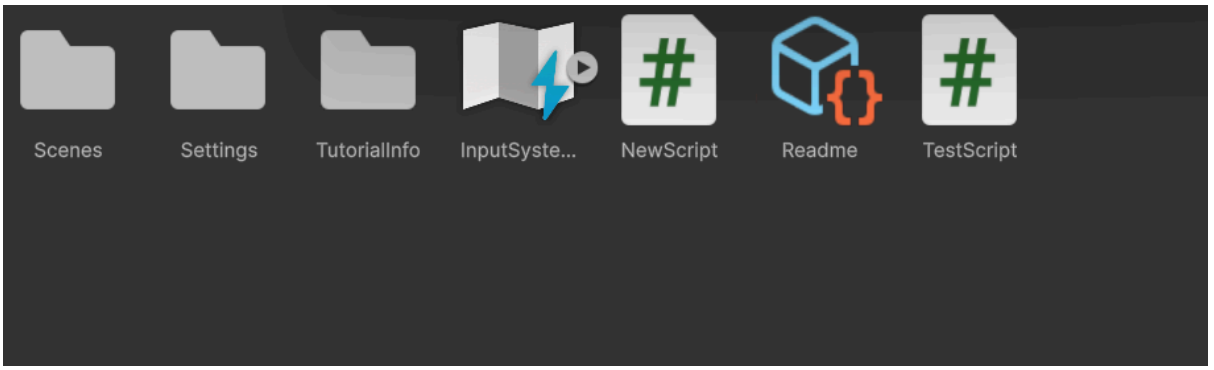
- Now if we create a new gameobject, we can add the scripts in that gameobject by going to the inspector panel and click on Add Component, it will show the following options



- You can either add the existing script to the object or create a new script
- If we select new script



- A new Script will be added to Assets



- When you double click on the script, it will automatically open in VScode application
- When the file is opened, it has some built-in code

```
using UnityEngine;

Unity Script | 0 references
public class NewScript : MonoBehaviour
{
    // 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()
    {

    }
}
```

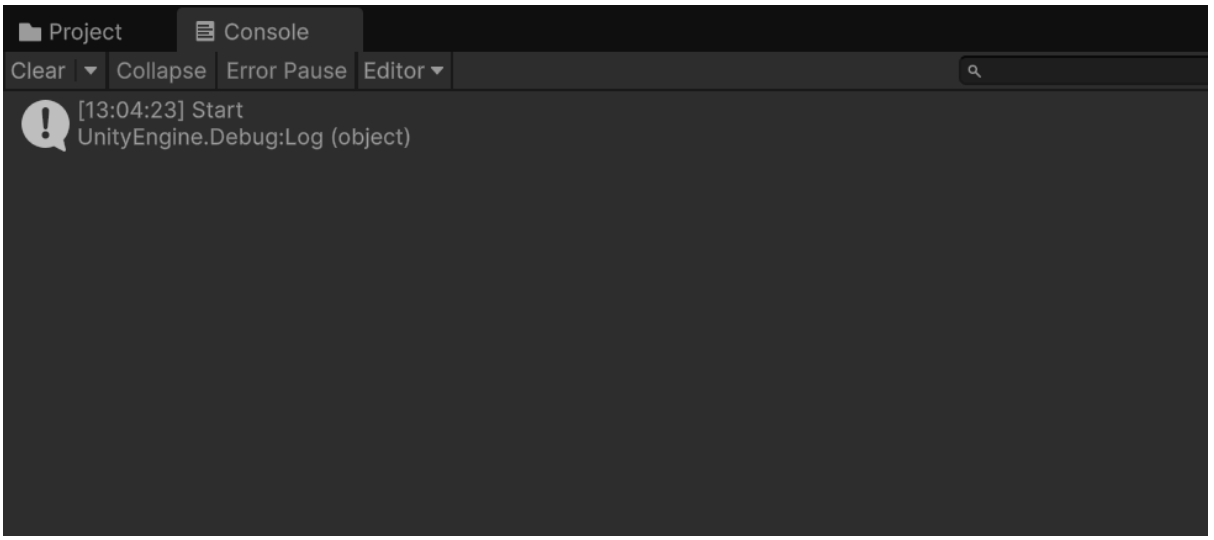
- Unity has created a public class NewScript (the name of file we assigned while creating)

  1. Start() function is called at the start of the game
  2. Update() function is called in every frame.

  Now if we write Debug.Log(“print message ”) in the start methos, it will help in debugging our code

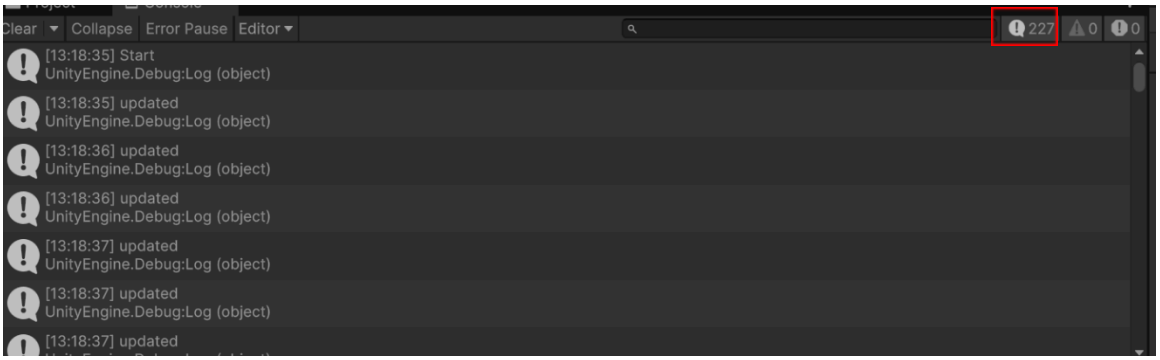
```
void Start()
{
    Debug.Log("Start");
}
```

  And when we play the game in unity, the message will be printed in the console window because the method will be called



  If we write Debug.Log in update methos, this is what will happen:

```
// Update is called once per frame
Unity Message | 0 references
void Update()
{
    Debug.Log("updated");
}
```



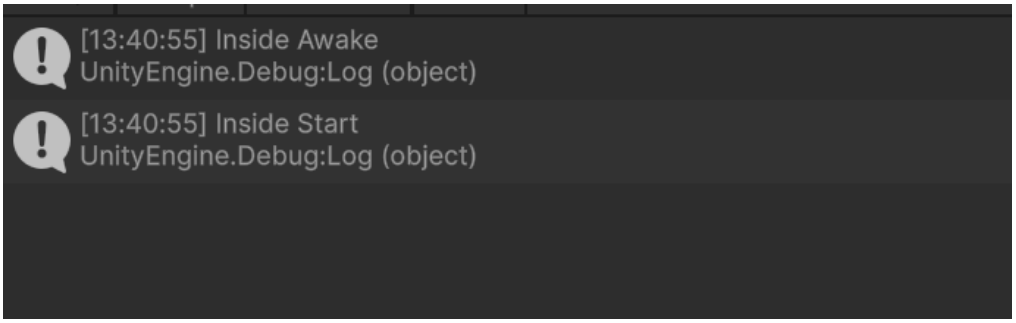
- It is being called again and again in every frame

3. Awake Function:

- Awake function is called before start

```
private void Awake()
{
    Debug.Log("Inside Awake");
}

Unity Message | 0 references
void Start()
{
    Debug.Log("Inside Start");
}
```



- Why awake function??
    - When you want to add things before the start of game

4. Destroy Function:

- It destroys the game object from the scene

```
Unity Message | 0 references
void Start()
{
    Destroy(gameObject, 3);
}
```

- You need to attach the script with the object you want to destroy.