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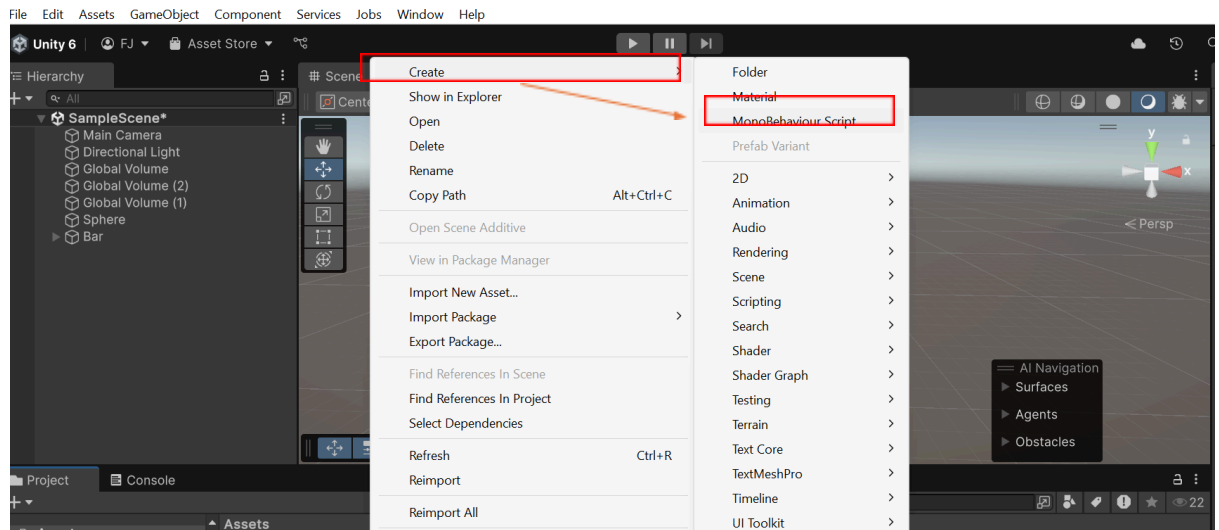**Instructor: Engr. Fatima Jaffar**

Lab No. 03

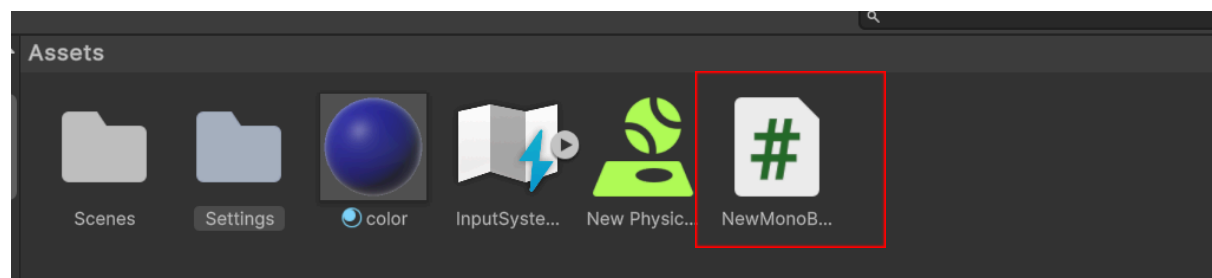**Objective**: Basic Programming with Unity 3D

1. Inserting a C# script in Unity

- Go to Assets ☐ Right Click

- Click Create

- Click MonoBehavoiour Script

- It will create a new C# File in the Assets folder

- A "MonoBehaviour script" in Unity is the base class used for creating any custom script that can be attached to a GameObject within the game engine.

- The Next Step is to Drag the CS file and Apply on the object in the list (In this case, the sphere)
- If you double click on the CS script, it will automatically open in VS Code, if the VS code is attached to Unity
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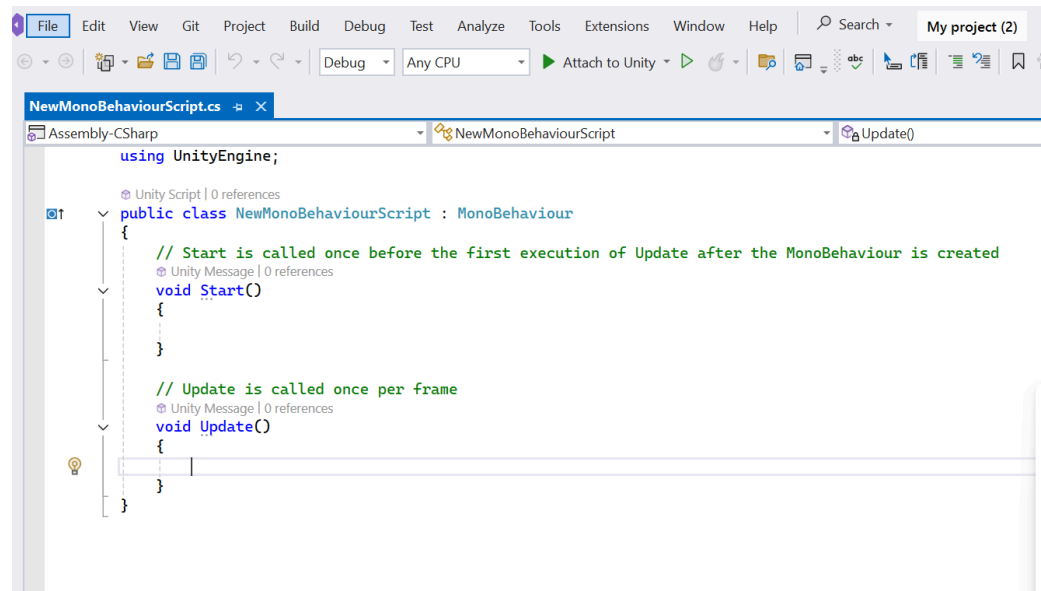
- NewMonoBehviourScript is the by default classname which implements the MonoBehaviour Interface.
- start() method is called when the game starts executing
- update() will execute in every frame

2. Enabling Left Right Key movements:

We will have to insert this code to the update method.

```
keyinput = Input.GetAxis("Horizontal");
GetComponent<Rigidbody>().linearVelocity = new Vector3(keyinput, GetComponent<Rigidbody>().linearVelocity.y, 0);
```

3. Enabling Space Key for Jumping:

For jumping we need to specify which key we want to use for jumping:

```
if (Input.GetKeyUp(KeyCode.Space))
{
    GetComponent<Rigidbody>().AddForce(Vector3.up, ForceMode.VelocityChange);
}
```

- Add this code into update method and see the results

4. Task 1: Change the background color of the scene

5. **Task 2:** Create this shape