Unity Bootcamp

UCF CAP6121
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Learn Something

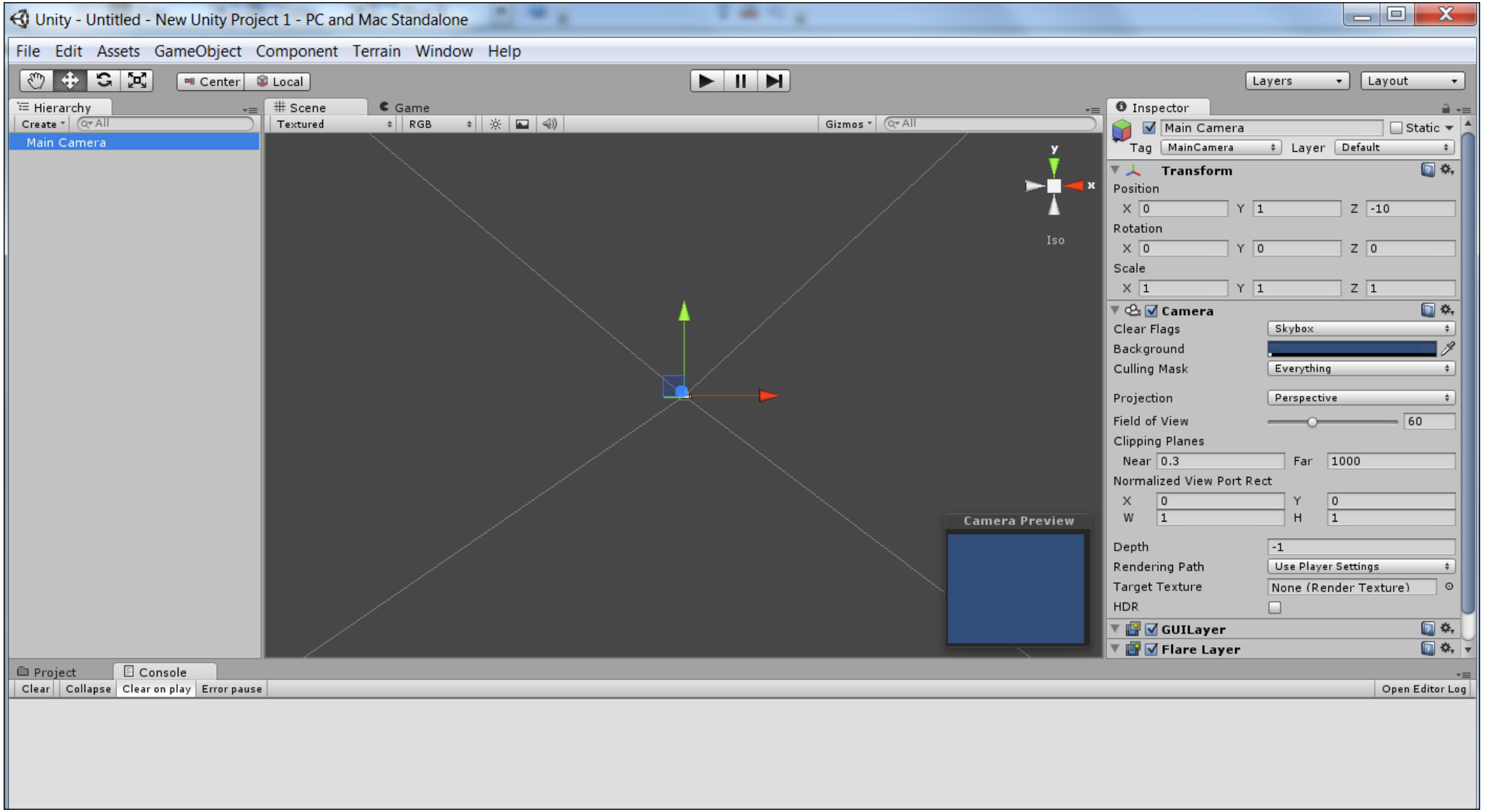
- Get Unity3D
- Understand Unity3D
- Use Unity3D

Get Unity

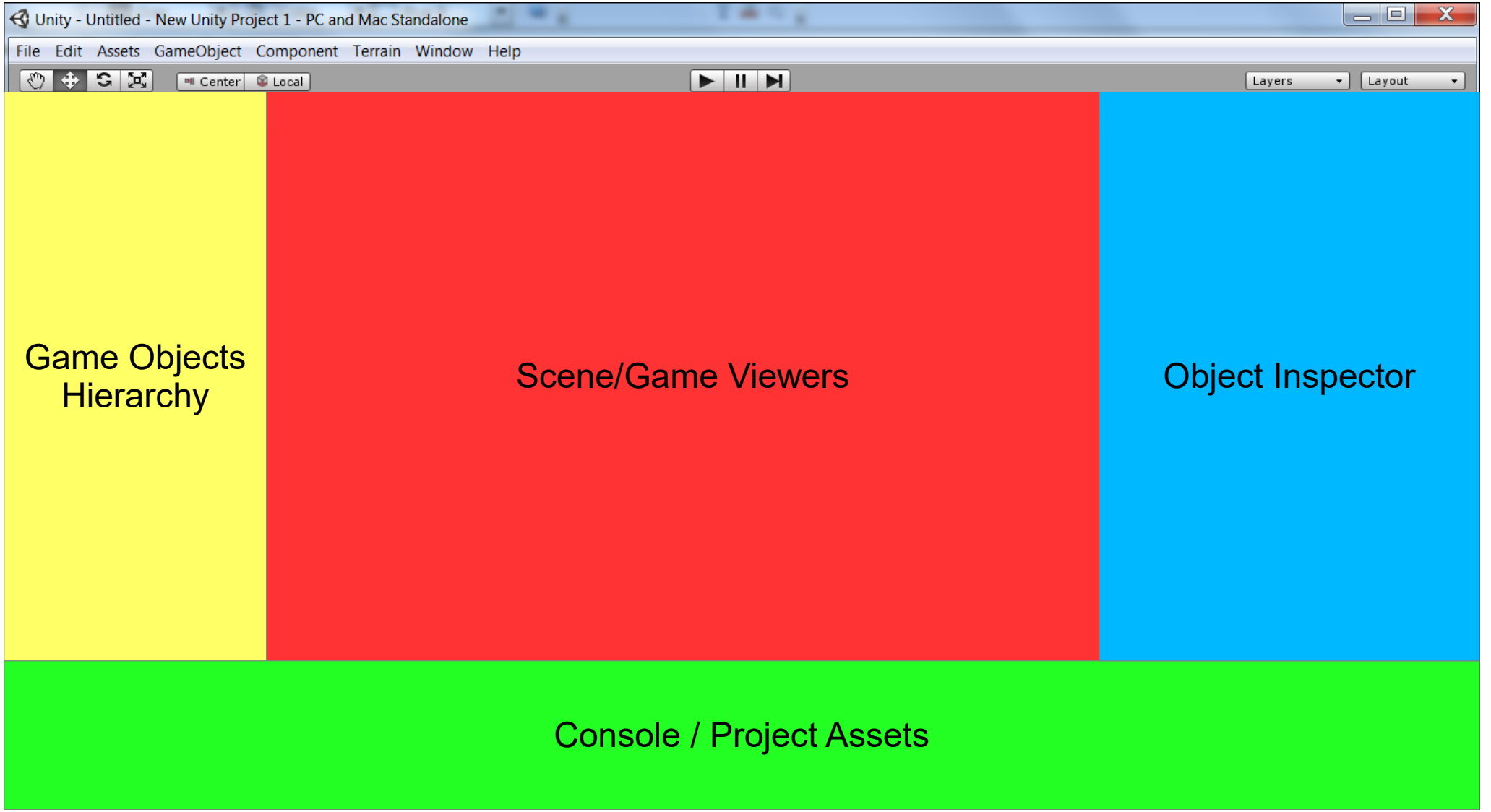
- https://store.unity.com/download?ref=personal

- Multiple versions available
- Basic version is free and sufficient for projects
- Pro licenses available for advanced usage

Understand Unity



Understand Unity



Understand Unity

- Game Object Hierarchy
  - As you place new things into the world, they are listed in the hierarchy
    - Camera(s)
    - Scenery Objects
    - Player Avatar
    - Etc.
  - **Click** on an object to see/edit details in Inspector
  - **Double click** on object to zoom to it in the Scene

Understand Unity

- Scene Viewer
  - Displays objects in the game world
  - Multiple ways to view your world
  - Game Objects can be manipulated directly

- Game Viewer
  - Displays objects according to the game camera
  - Consider it as a way to “preview” the world without running the whole game

Understand Unity

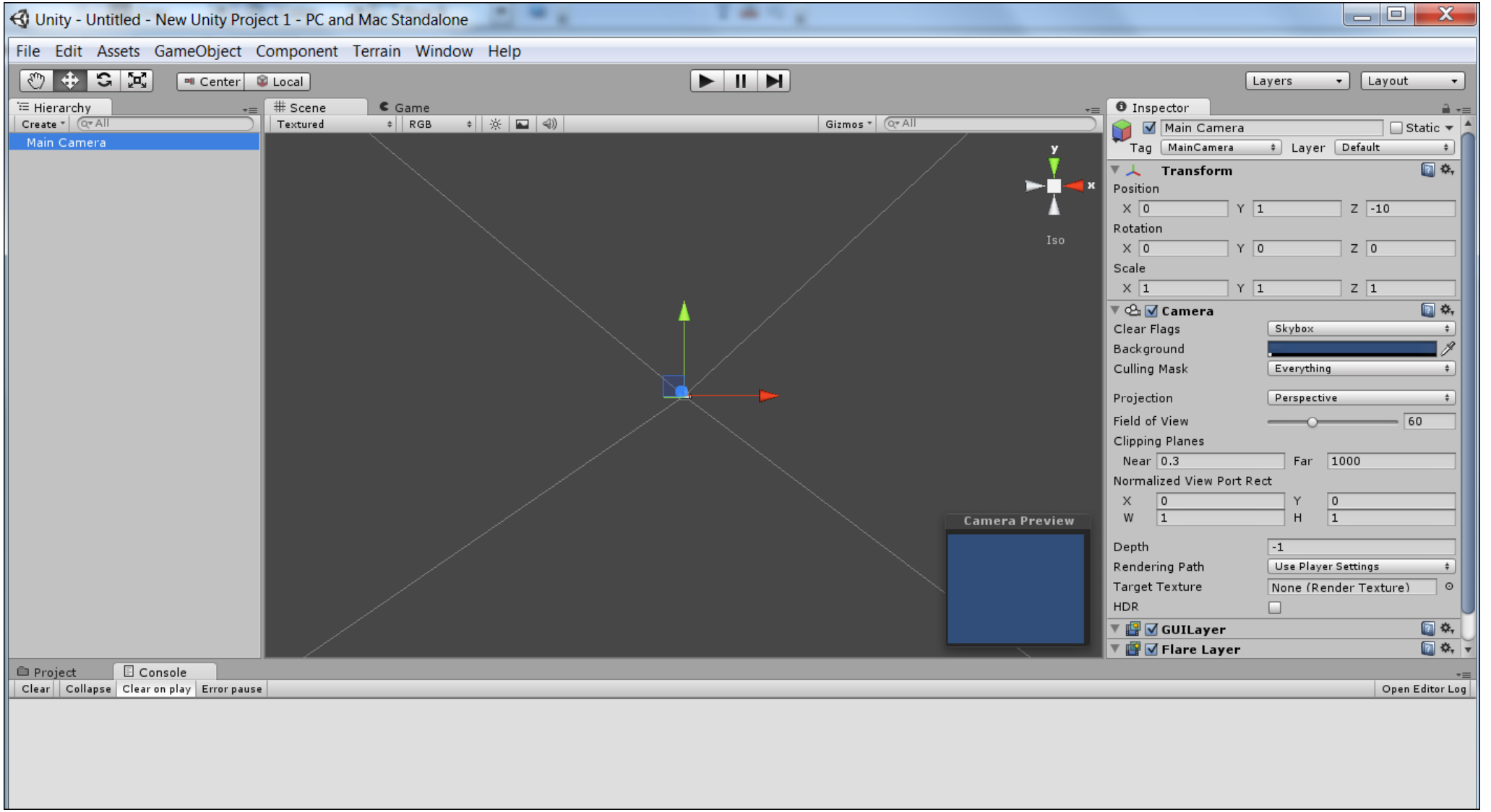
- Inspector
  - For selected Game Object, displays components
  - Components take many forms that affect how the game object looks/behaves
    - Scripts, Meshes, Colliders, Audio Sources...
  - Most components can be modified in Inspector
    - Object “Transform” (position, rotation, scale)
    - Mesh properties
    - Script variables
    - Etc.

Understand Unity

- Console
  - Displays errors, warnings, debugging lines, etc.

- Project Assets
  - Quick way to get to **prefabs**, **scripts**, and other resources that are part of the project

Understand Unity



Use Unity

- Get Game Objects into the World
  - Create “primitives” such as sphere, cube, etc.
  - Drag Prefabs into the scene from Project tab
- Modify Game Objects
  - Add components (meshes, textures, scripts)
- Press Play!

Scripting

- While Unity has built-in physics, this is not enough for your custom projects
- Custom Scripts are used to build specific behaviors for Game Objects

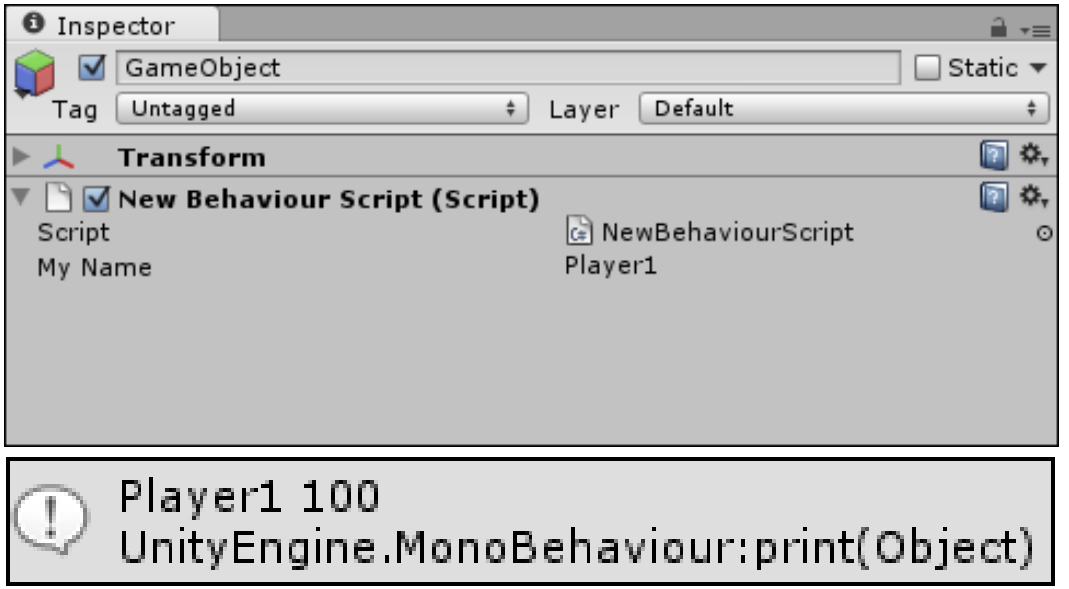
```
using UnityEngine;
using System.Collections;

public class NewBehaviourScript : MonoBehaviour {

    public string myName;
    private int lifeCounter;

    void Start () {
        lifeCounter = 100;
    }

    void Update () {
        print(myName + " " + lifeCounter);
    }
}
```



Our First Game

- Create a game world
- Add the Player
- Add Scenery
  - Terrain
  - Trees
  - Water
- Add an NPC
  - Graphics
  - Sound effects
  - Scripted behaviors

Live Demo!