Unity Bootcamp

UCF CAP6121
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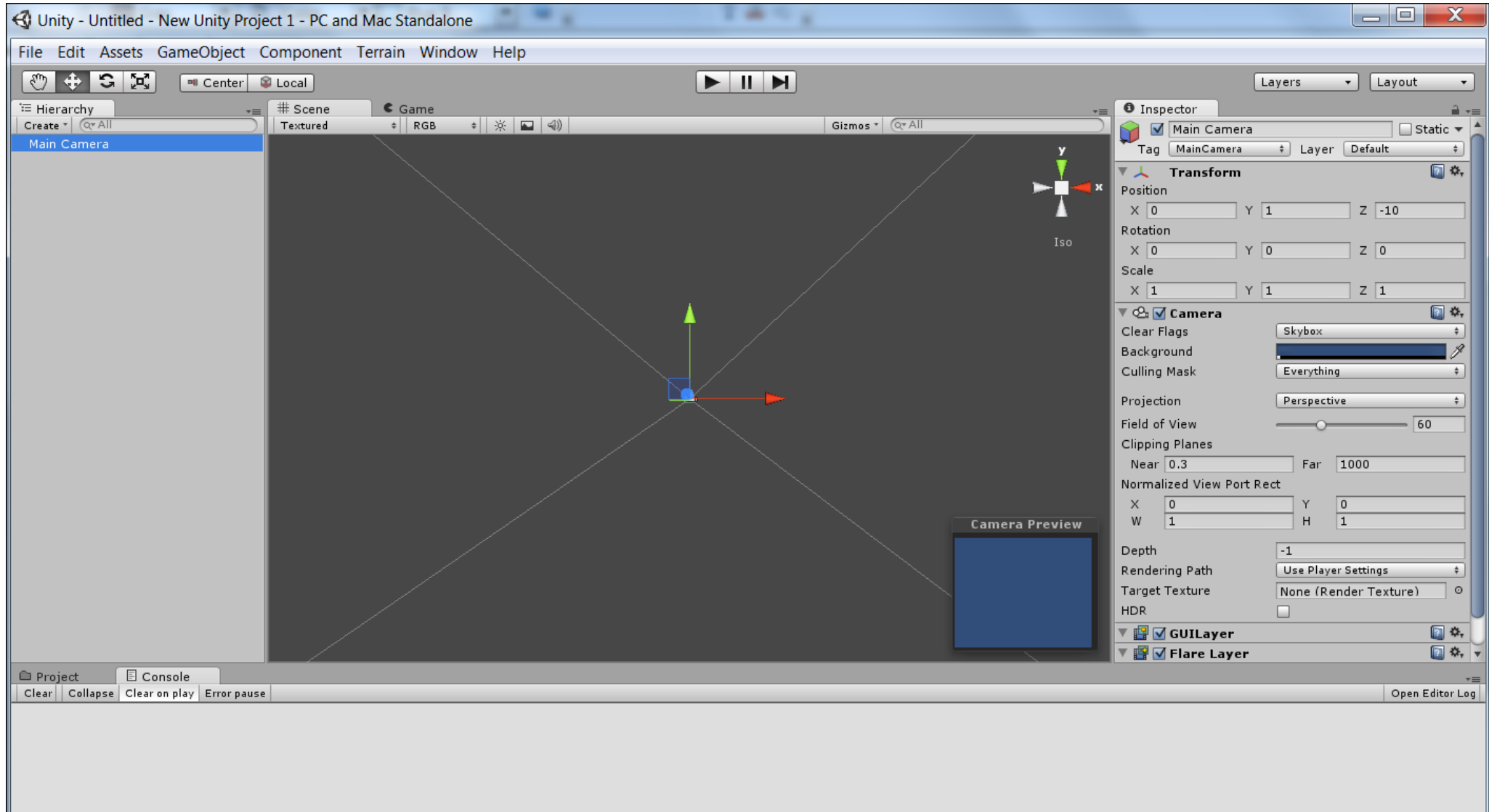
Learn Something

- Get Unity3D

- Understand Unity3D

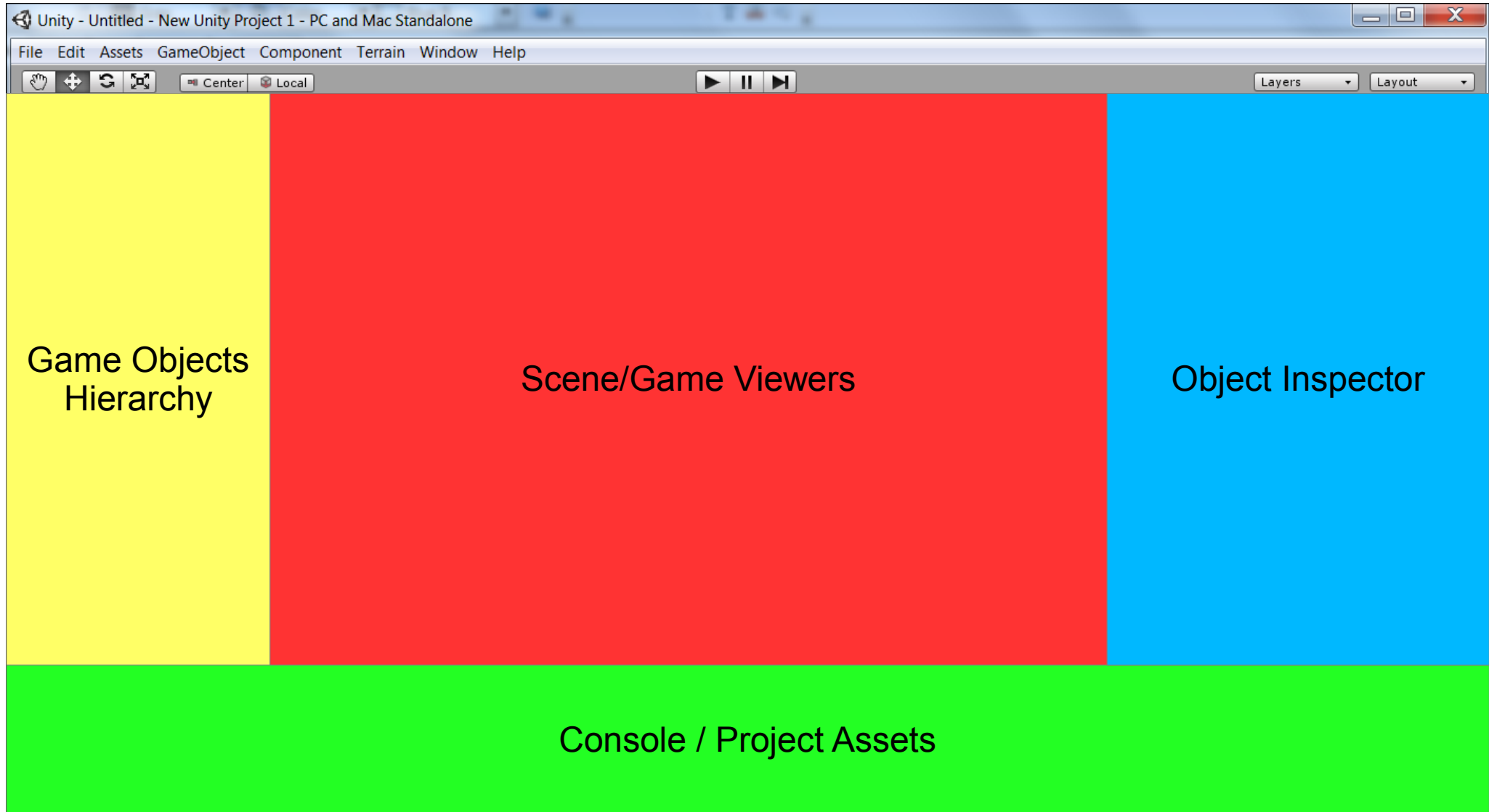- Use Unity3D

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 maniplulated 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
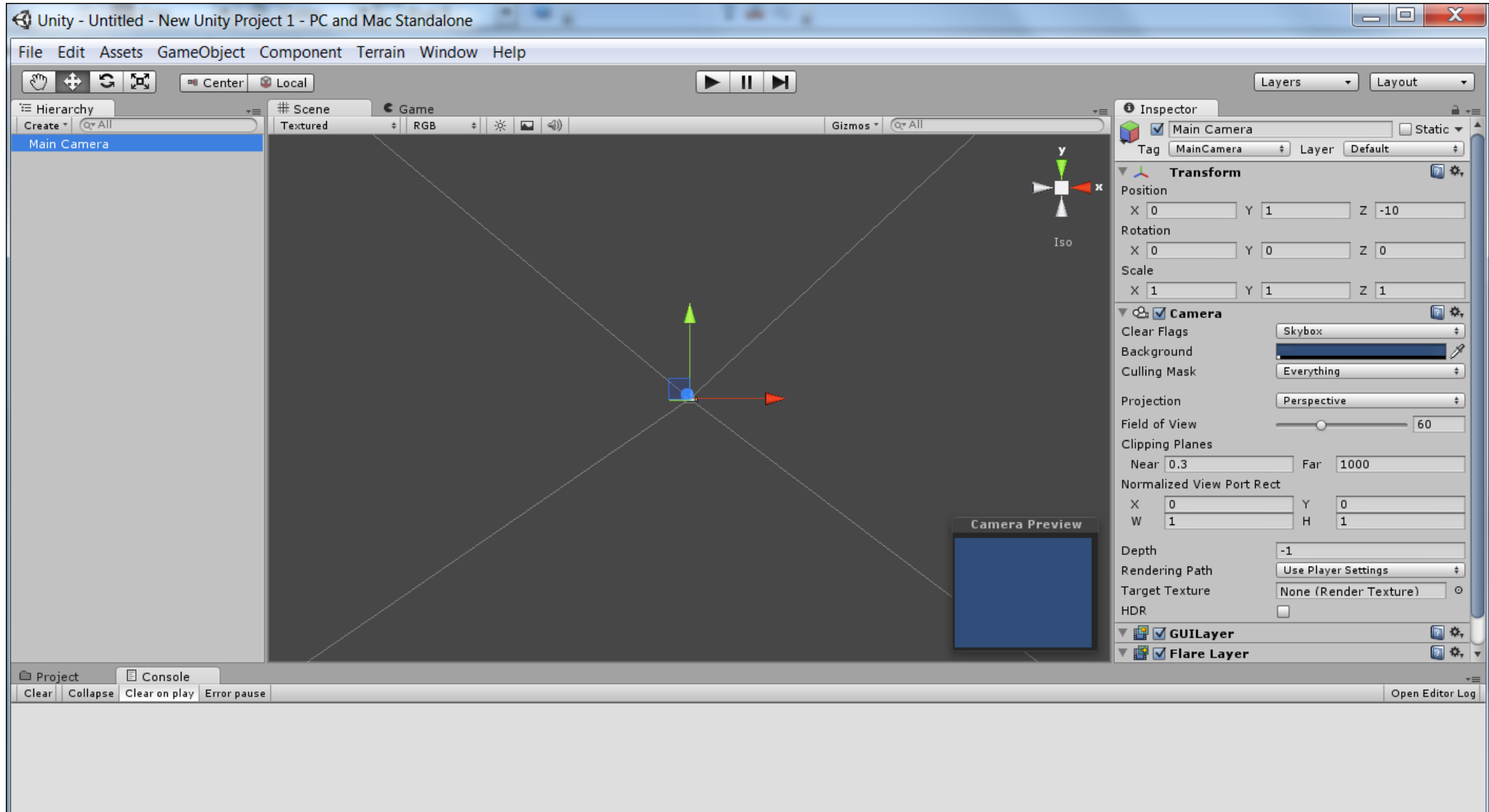
Use Unity

- 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
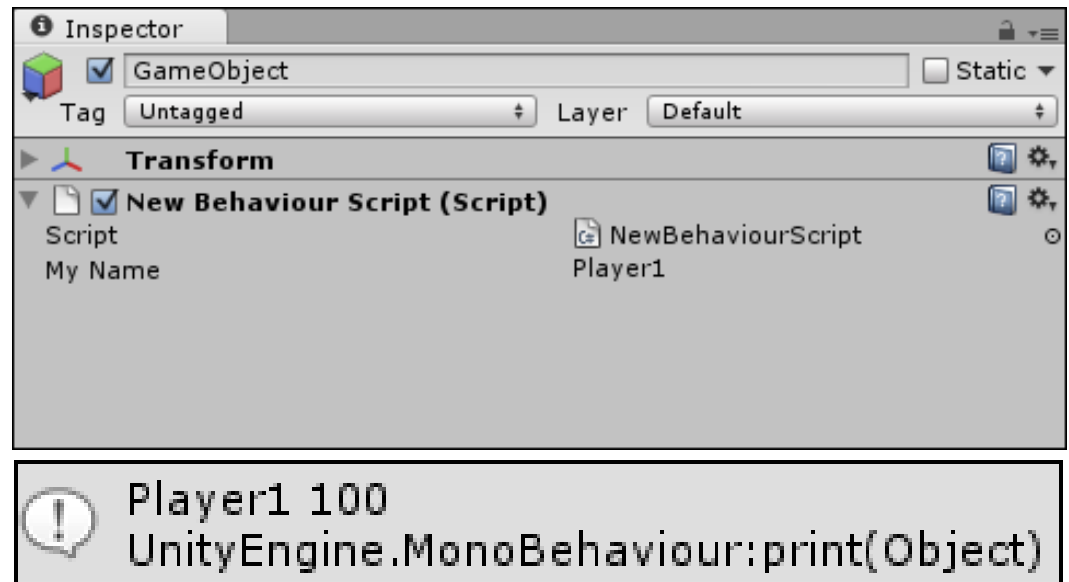
```
using UnityEngine;
using System.Collections;

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!