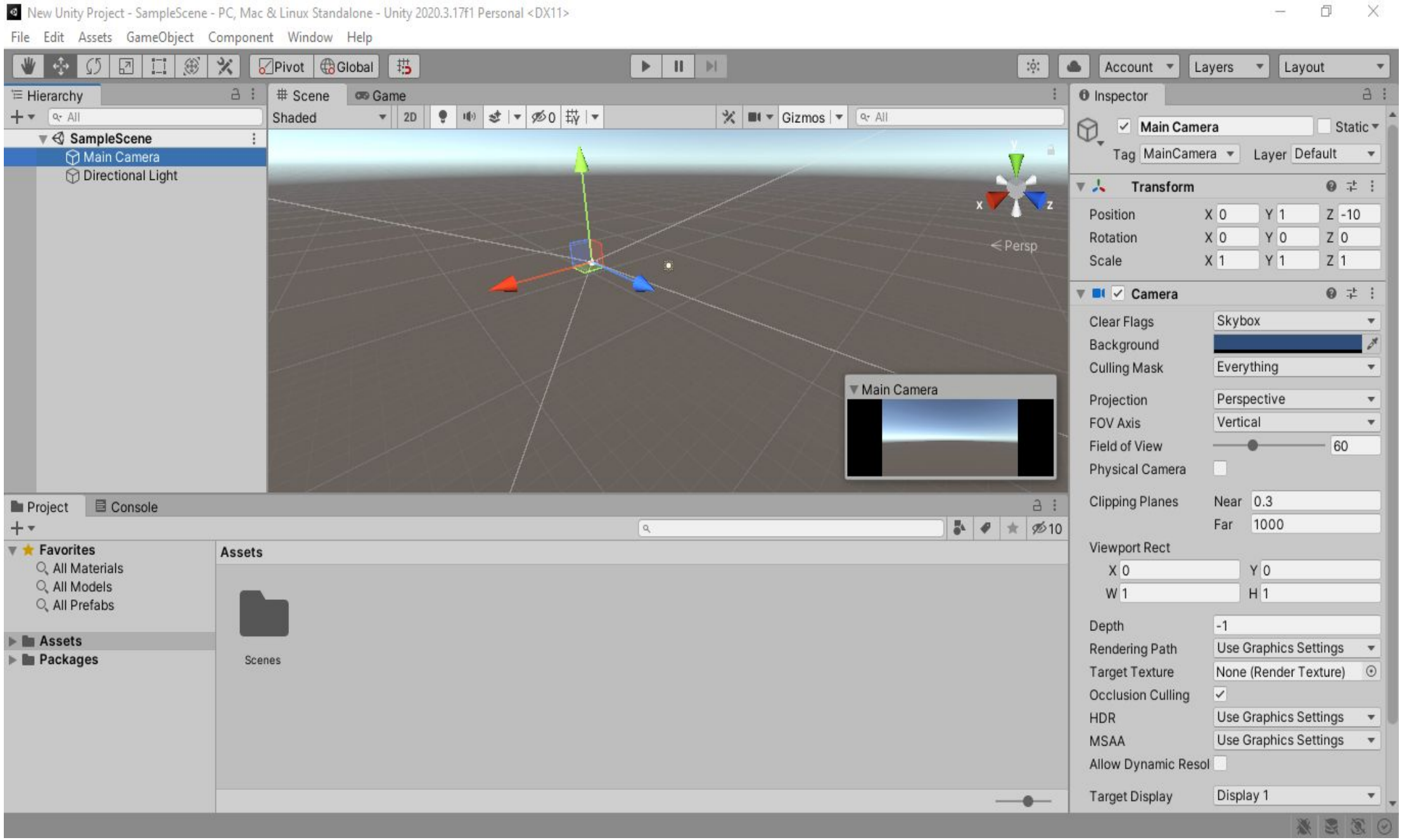
First Project Unity


New Unity Project - SampleScene - PC, Mac & Linux Standalone - Unity 2020.3.17f1 Personal <DX11>
File Edit Assets GameObject Component Window Help
Pivot Global
Account Layers Layout
Hierarchy
All
SampleScene
Main Camera
Directional Light
Scene Game
Shaded 2D Gizmos All
Persp
Main Camera
Inspector
Main Camera Static
Tag MainCamera Layer Default
Transform
Position X 0 Y 1 Z -10
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1
Camera
Clear Flags Skybox
Background
Culling Mask Everything
Projection Perspective
FOV Axis Vertical
Field of View 60
Physical Camera
Clipping Planes Near 0.3
Far 1000
Viewport Rect
X 0 Y 0
W 1 H 1
Depth -1
Rendering Path Use Graphics Settings
Target Texture None (Render Texture)
Occlusion Culling
HDR Use Graphics Settings
MSAA Use Graphics Settings
Allow Dynamic Resol
Target Display Display 1
Project Console
Favorites
All Materials
All Models
All Prefabs
Assets
Packages
Assets
Scenes

First View of Project

- Four main regions are there when we create a new project
- Hierarchy window is where we will build our Scenes.
- It is where all the objects in your currently open scene are listed, along with their parent-child hierarchy. We will add objects to this list shortly.
- Scenes are levels in which everything in your game takes place.
- If you click on the small Game tab, you can see a Preview window of how the game looks like to the player.
- For now, it should be a simple, blue background

- 2nd region is the Inspector. It is shows info of Camera for now, because we have camera object in our scene. We will see how the Inspector is used later on.

- Another region is the Project Assets window. All assets in your current project are stored and kept here.
- All externally imported assets such as textures, fonts and sound files are also kept here before they are used in a scene.

Scene

- By default, a new Scene in Unity will have a Camera object in the scene called the Main Camera.
- It is possible to add multiple cameras to the scene, but we will only deal with the main camera for now.
- The main camera renders everything that it sees or “captures” in a specific region called the viewport. Everything that comes into this region becomes visible for the player.

Game Object

- A scene itself is made out of objects, called GameObjects.
- GameObjects can be anything from the player's model to the GUI on the screen, from buttons and enemies to invisible "managers" like sources of sound.
- GameObjects have a set of components attached to them, which describe how they behave in the scene, as well as how they react to others in the scene.

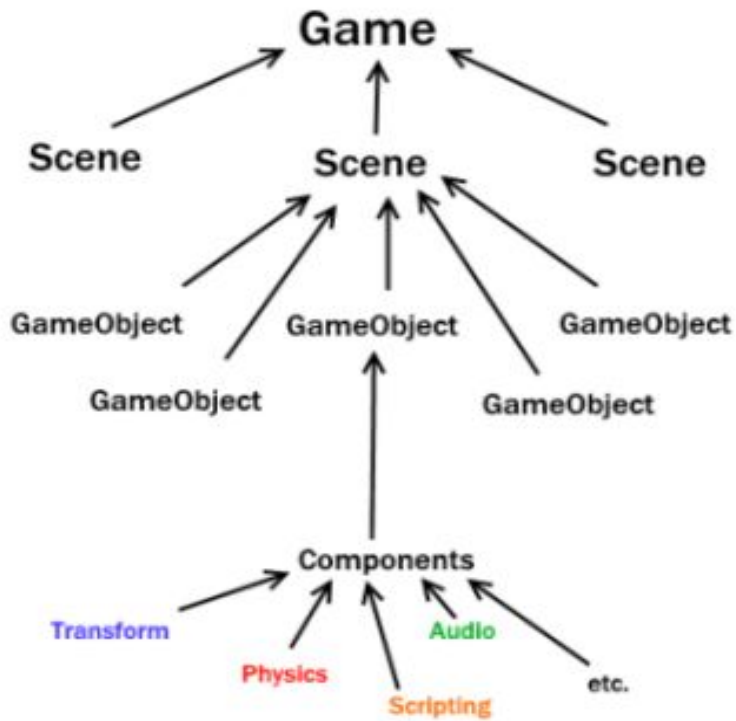
Componet

- The most important component for any GameObject is its Transform component.
- Any object that exists in a scene will have a transform, which defines its position, rotation and scale with respect to the game world, or its parent if any.
- The additional components can be attached to an object by clicking on Add Component and selecting the desired component. In our subsequent lessons, we will also be attaching Scripts to GameObjects so that we can give them programmed behavior.

Few Componets

- Let us now consider a few examples of components:
- **Renderer:** Responsible for rendering and making objects visible.
- **Collider:** Define the physical collision boundaries for objects.
- **Rigidbody:** Gives an object real-time physics properties such as weight and
- gravity.
- **Audio Source:** Gives object properties to play and store sound.
- **Audio Listener:** The component that actually “hears” audio and outputs it to the player’s speakers. By default, one exists in the main camera.

- **Animator:** Gives an object access to the animation system.
- **Light:** Makes the object behave as a light source, with a variety of different effects.


Game
Scene
Scene
Scene
GameObject
GameObject
GameObject
GameObject
GameObject
Components
Transform
Physics
Scripting
Audio
etc.