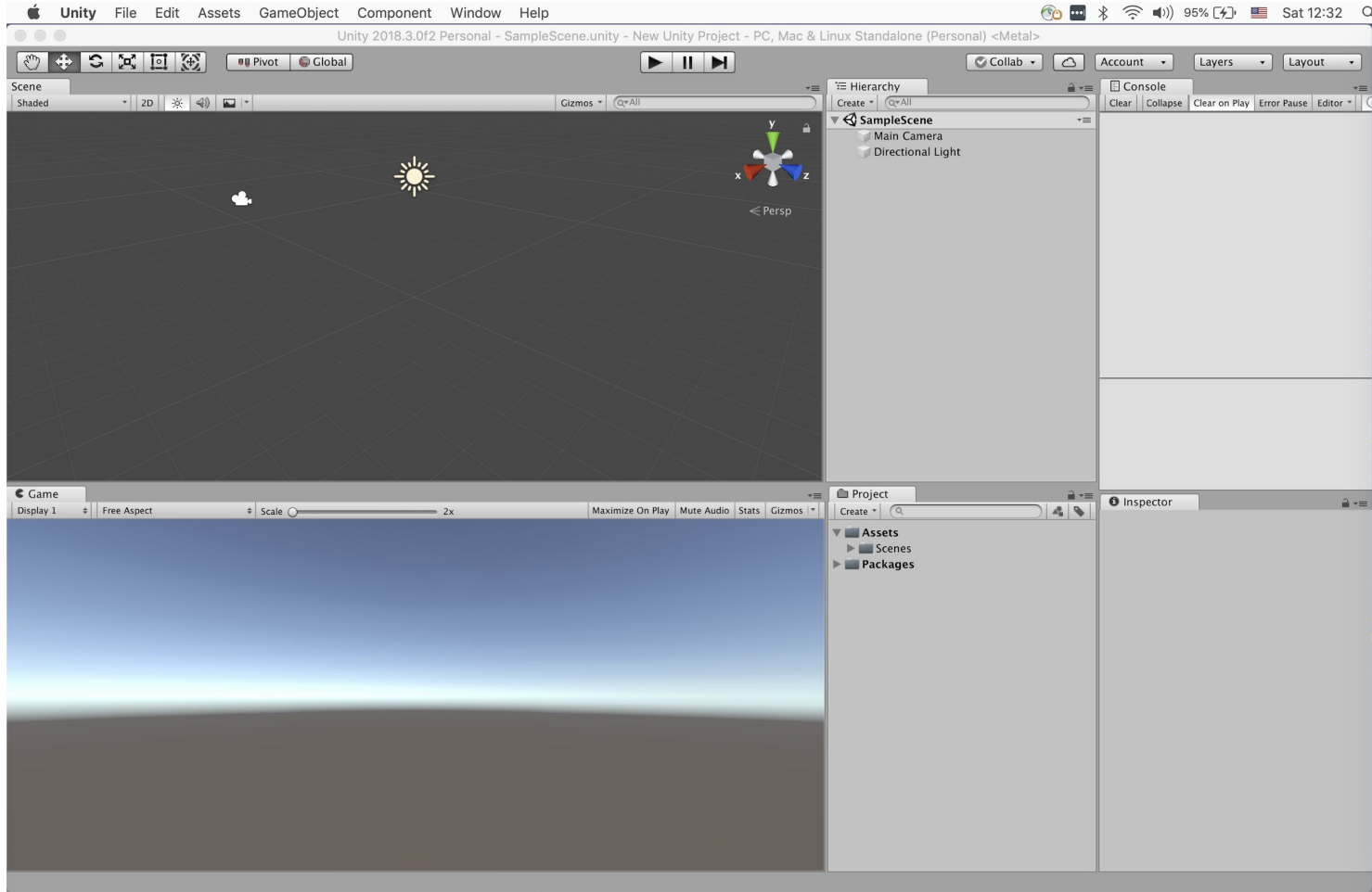# Assignment01 setup
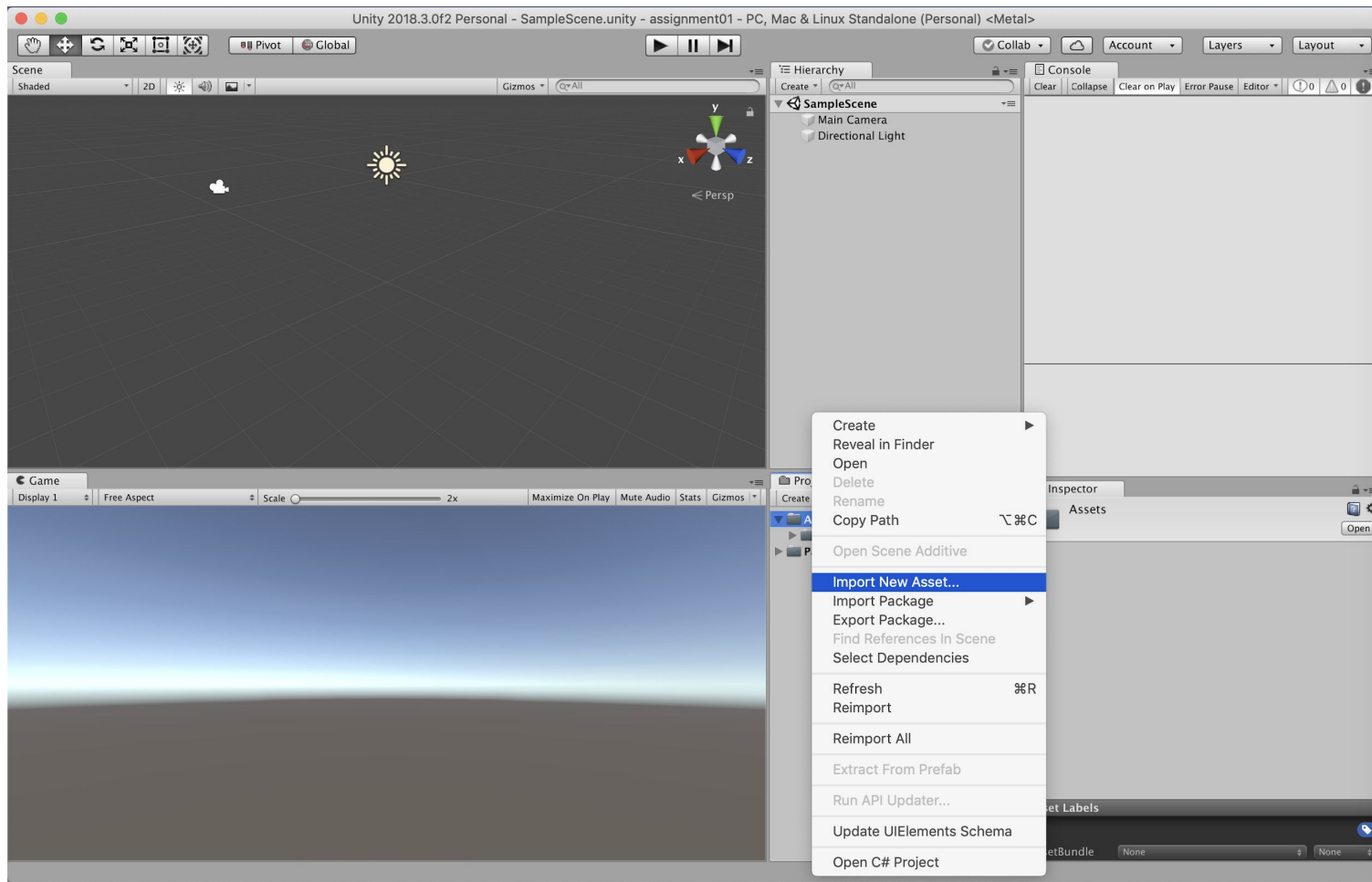
CSC305 lab01
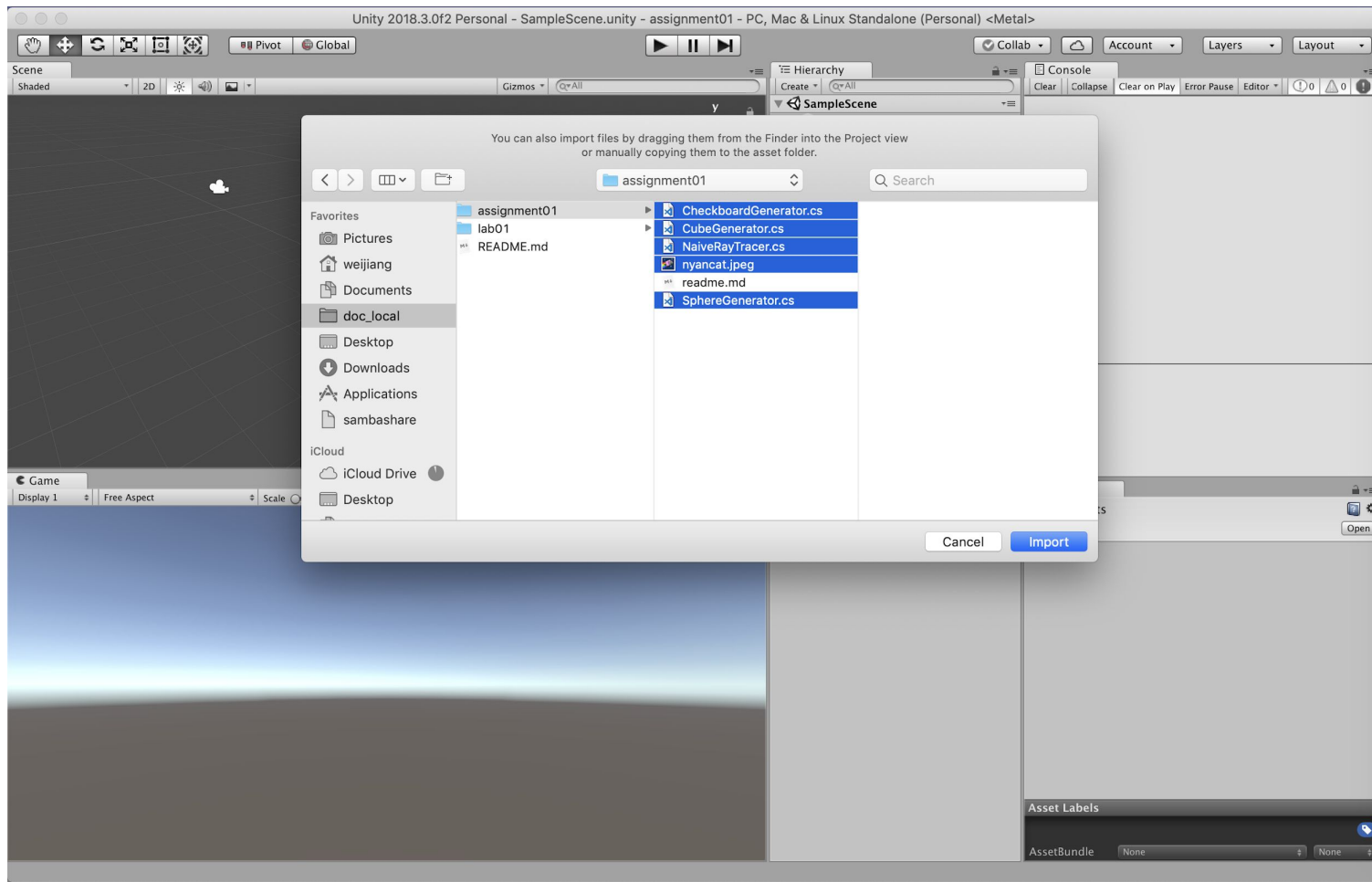
Create new project
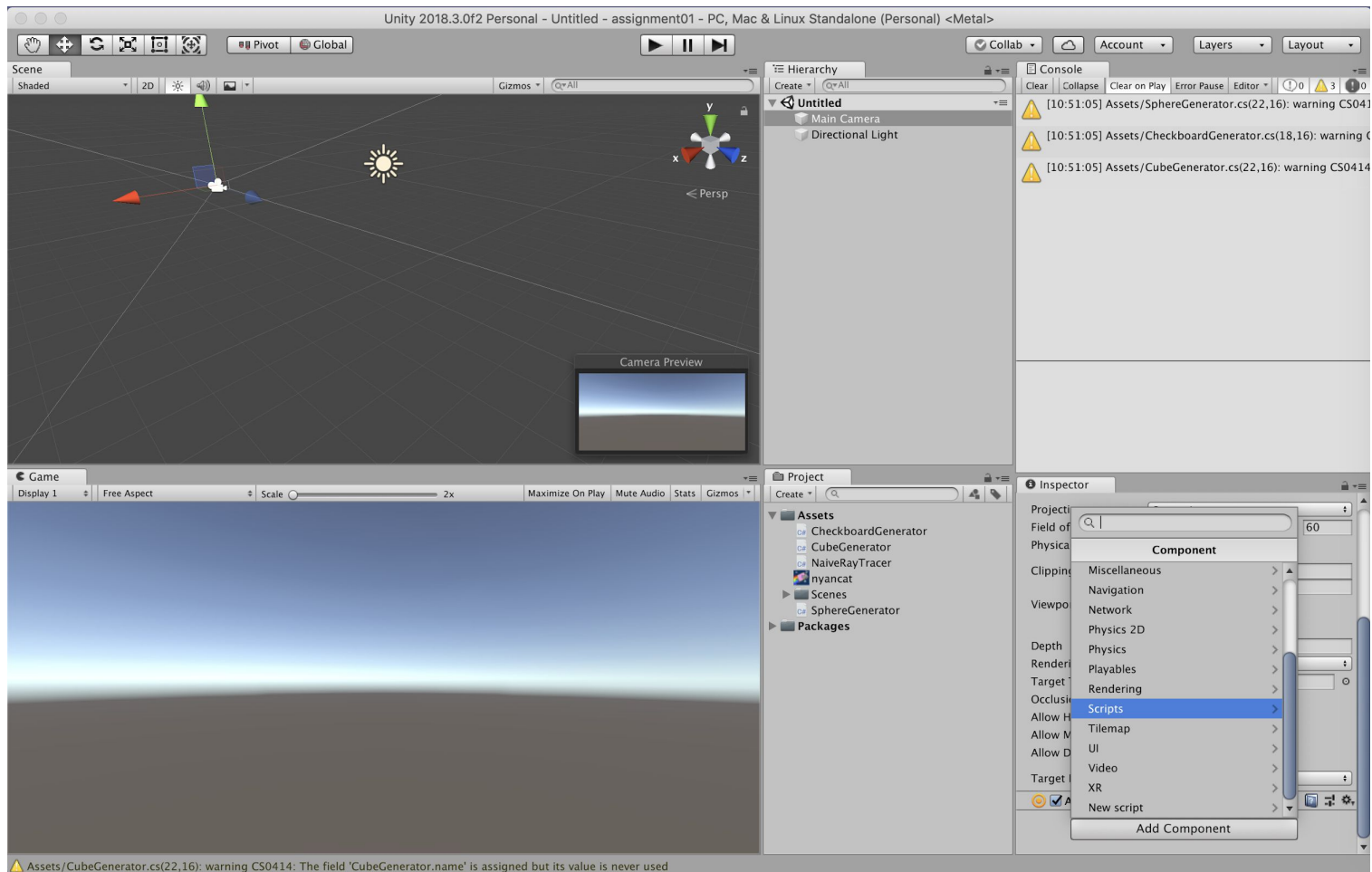
Import skeleton code
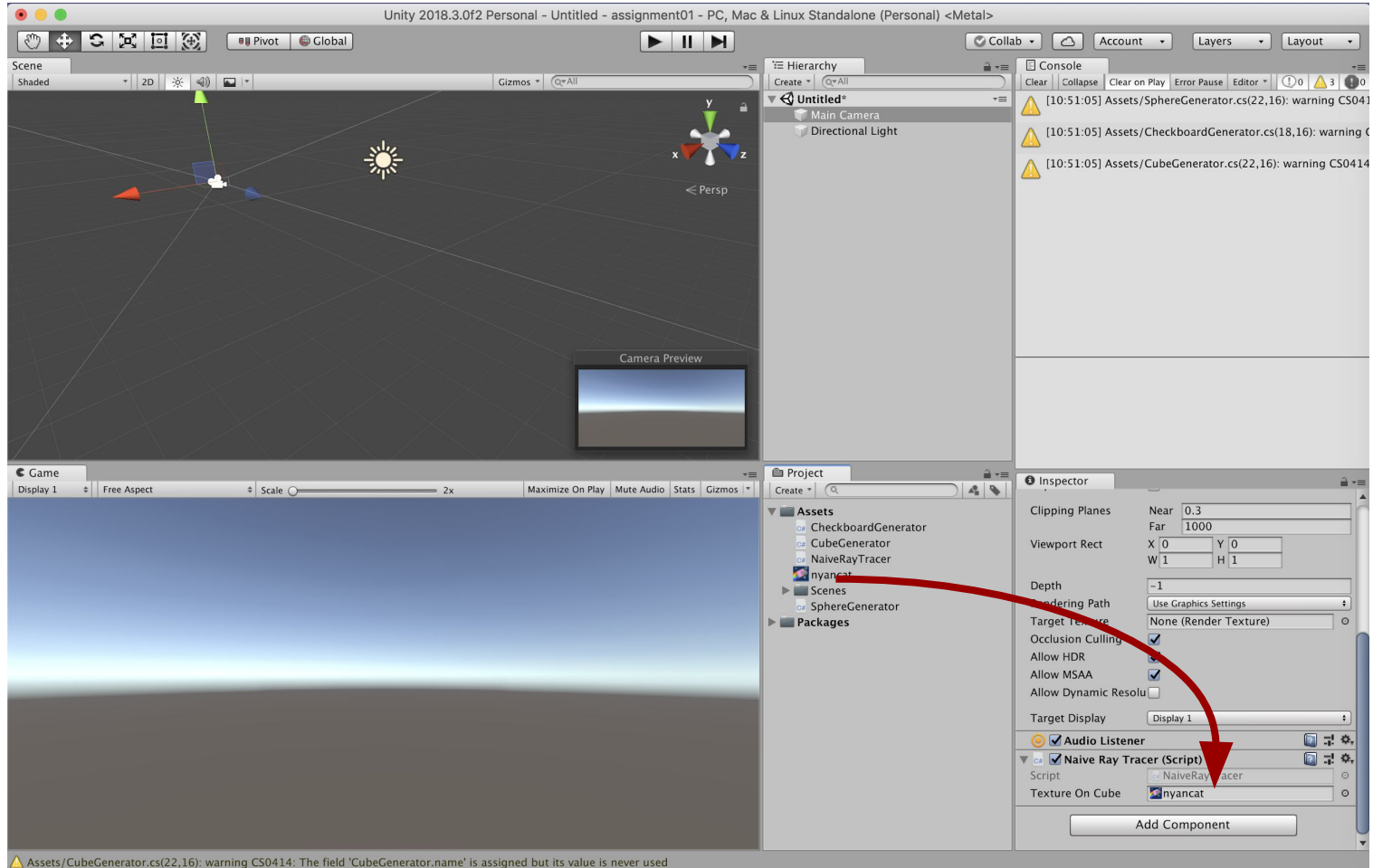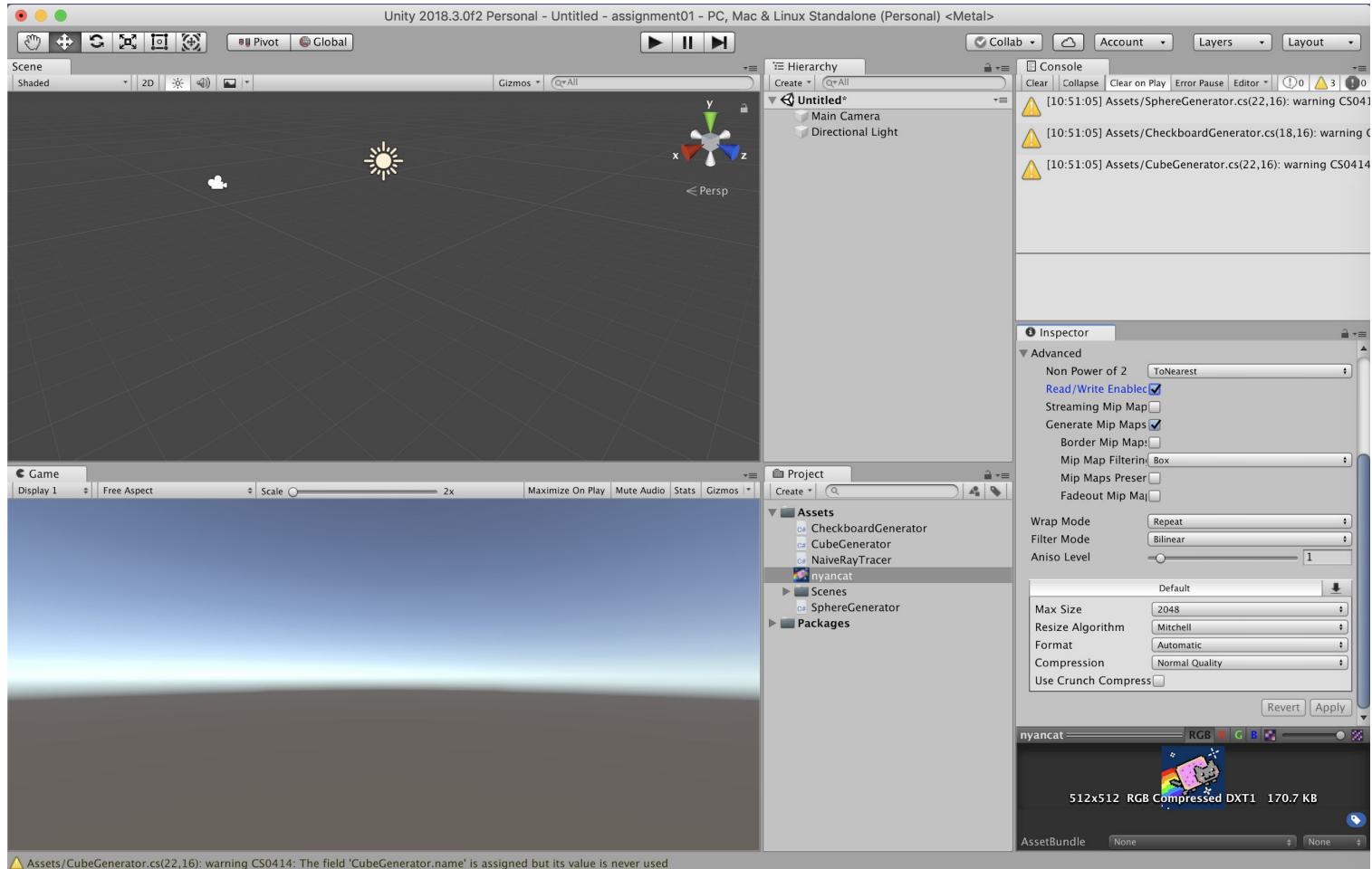
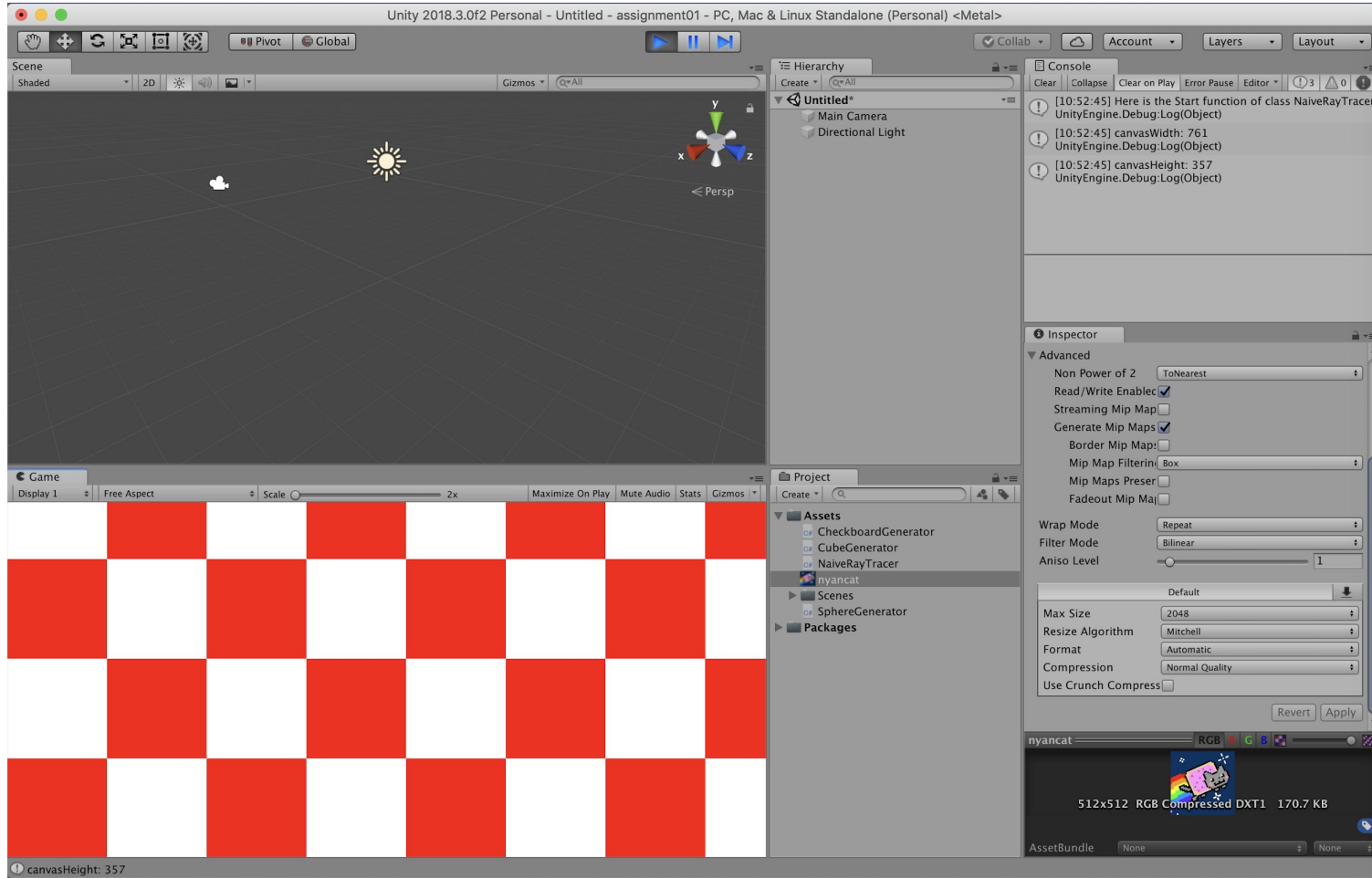# Import skeleton code

Attach "NaiveRayTracer" to camera

Drag and drop texture

Enable texture read/write, and apply

Click "play" button, you should see a checkerboard

Implement


```csharp
29
30         public Texture2D GenSphere(int width, int height)
31         {
32             /*
33             implement ray-sphere intersection and render a sphere with ambient, diffuse and specular light
34
35             int width - width of the returned texture
36             int height - height of the return texture
37             return:
38                 Texture2D - Texture2D object which contains the rendered result
39             */
40             throw new NotImplementedException();
41         }
42         private bool IntersectSphere(Vector3 origin,
43                                      Vector3 direction,
44                                      Vector3 sphereCenter,
45                                      float sphereRadius,
46                                      out float t,
47                                      out Vector3 intersectNormal)
48         {
49             /*
50             Vector3 origin - origin point of the ray
51             Vector3 direction - the direction of the ray
52             Vector3 sphereCenter - center of target sphere
53             float sphereRadius - radius of target sphere
54             out float t - distance the ray travelled to hit a point
55             out Vector3 intersectNormal - normal of the hit point
56             return:
57                 bool - indicating hit or not
58             */
59             throw new NotImplementedException();
60         }
61     }
62 }
63
```