**Games Programming Taster**

**Cannon Fodder: An Introduction to Unity Development**

**Getting Started**

Load the Project indicated by the lecturer.

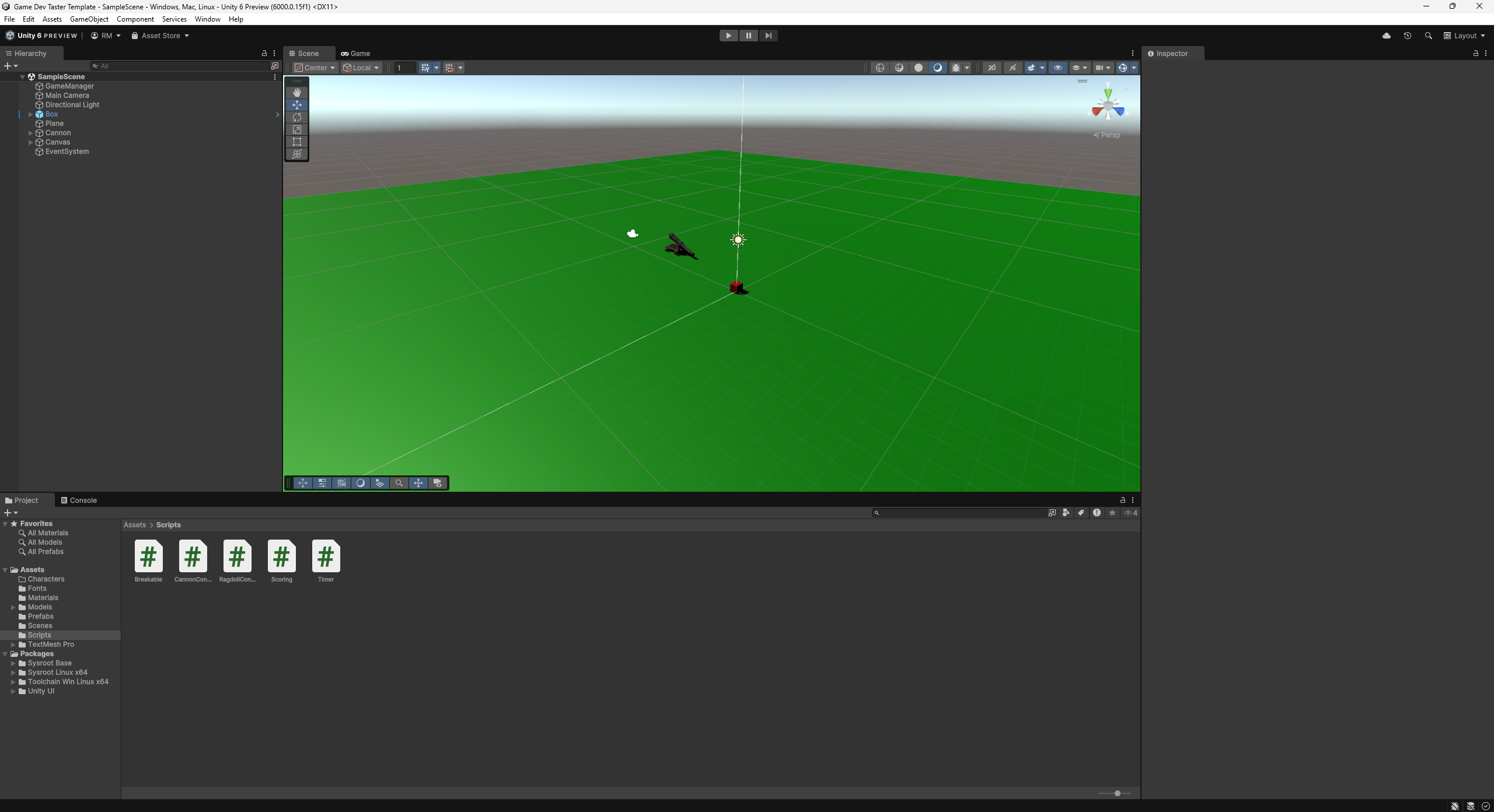
Sometimes when a Project has been packaged a certain way, an untitled and empty Scene opens:

A screenshot of a computer

Description automatically generated with medium confidence

To open the Scene for this tutorial, locate the Scenes folder in the Project pane and open the Sample Scene:Text

Description automatically generated



You may like to change your layout so you can see the Scene AND Game panes together. ‘2 by 3’ is one option:

A computer screen shot of a green field

Description automatically generatedA computer screen shot of a green field

Description automatically generated

We will be working with the CannonController script file located in the Project Pane under the ‘Scripts’ folder:

Graphical user interface, text, application

Description automatically generated

Open the file using Visual Studio 2022 and you will see something like this:

Text

Description automatically generated

Edit to reflect the following:

|  |
| --- |
| using UnityEngine;  public class CannonController : MonoBehaviour  {  // START HERE  public GameObject barrel;  public GameObject shotSpawn;  public GameObject shot;  public float rateOfFire = 2f;  public float shotSpeed = 800f;  float fireDelay;  // Update is called once per frame  void Update()  {  float rotation = Input.GetAxis("Horizontal");  transform.Rotate(0f, rotation, 0f);  float pitch = Input.GetAxis("Vertical") +  barrel.transform.rotation.eulerAngles.x;  pitch = Mathf.Clamp(pitch, 320f, 359f);  Quaternion barrelRotation = Quaternion.Euler(pitch, 0f, 0f);  barrel.transform.localRotation = barrelRotation;  if (Input.GetButton("Fire3") && Time.time > fireDelay)  {  fireDelay = Time.time + rateOfFire;  GameObject shotInstance = Instantiate(shot,  shotSpawn.transform.position,  shotSpawn.transform.rotation);    shotInstance.GetComponent<Rigidbody>()  .AddForce(shotSpawn.transform.forward \* shotSpeed);  }  }  } |

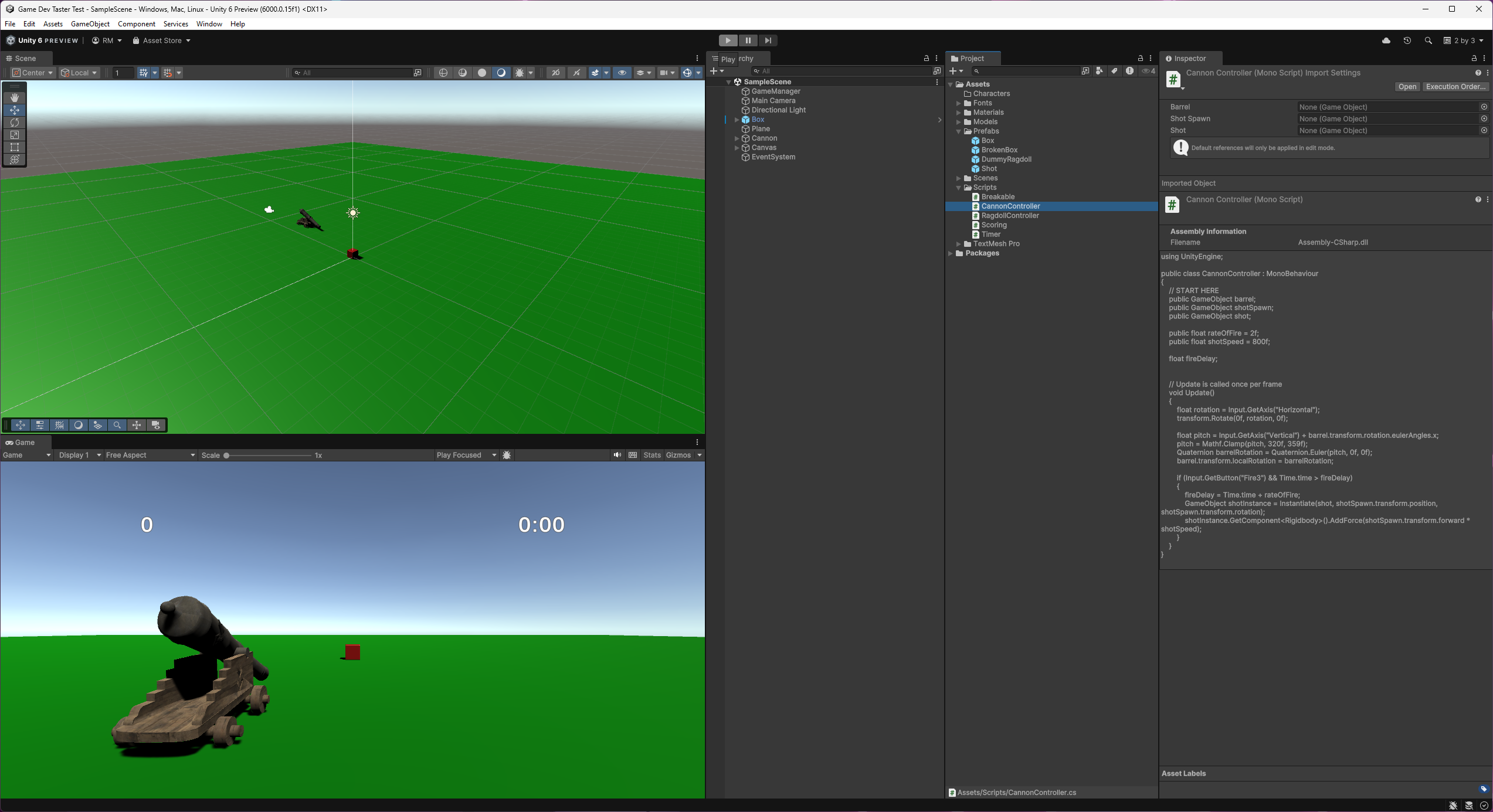
Graphical user interface, text, application

Description automatically generated

Graphical user interface

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Run the game by clicking the run button:



Test everything works:

* Rotating the cannon (A and D or arrows LEFT and RIGHT)
* Pitching the barrel (W and S or arrows UP and DOWN)
* Firing a shot (using SHIFT)

Try and hit the red block. It should smash if you hit it and the score should increment.

Settings can be changed in the inspector for things like power and smash intensity.

A picture containing text

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