

Intro to Scripting part 1, 2, 3

Project organization

Unity Components

Particle component

Parenting

KeyCode

Prefabs

Instantiate

Transformations

Collisions

Tags

Collisions

Add Cylinder / scale it 10.1.10

Check "Is trigger" on capsule collider component

Add audio source component & uncheck "Play on awake"

Add CAVE playe / Uncheck Use gravity in rigidbody component

Create new script "CollisionsScript" and add it to the cylinder



Pivot Global



Collab



Account

Layers

Layout

Hierarchy

Scene

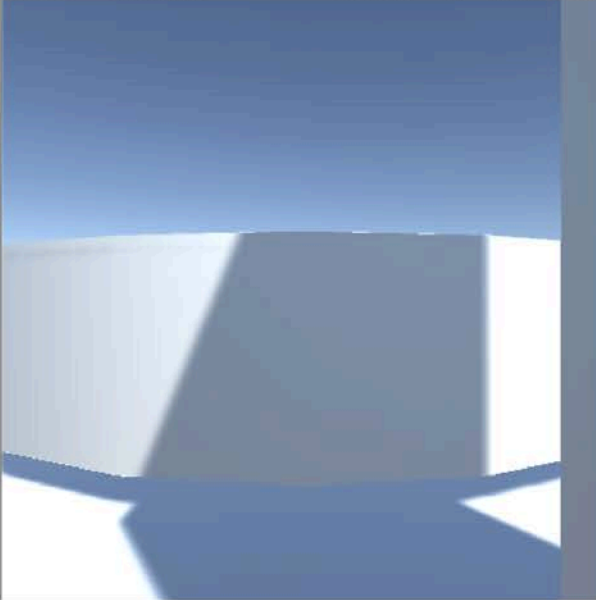
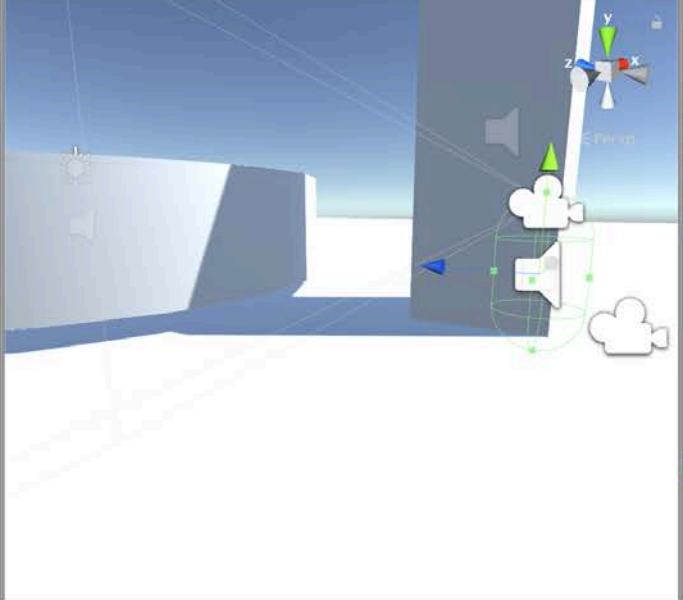
Game

Create All

Shaded 2D Gizmos QwAll

Display 1 Free Aspect Scale 2x Maximize On Play

- scripting4collisions*
- Main Camera
- Directional Light
- Cube
- Cylinder
- FPSController
- Cube (1)



Inspector Services

Character Controller

- Slope Limit: 45
- Step Offset: 0.3
- Skin Width: 0.08
- Min Move Distance: 0
- Center: X 0 Y 0 Z 0
- Radius: 0.5
- Height: 1.8

First Person Controller (Scr)

- Script: FirstPersonCont
- Is Walking:
- Walk Speed: 5
- Run Speed: 10
- Runstep Lengthen: 0.7
- Jump Speed: 10
- Stick To Ground Force: 10
- Gravity Multiplier: 2
- Mouse Look:
 - Use Fov Kick:
 - Fov Kick
 - Use Head Bob:
 - Head Bob
 - Jump Bob
- Step Interval: 5
- Footstep Sounds:
 - Jump Sound: Jump
 - Land Sound: Land

Rigidbody

- Mass: 1
- Drag: 0
- Angular Drag: 0.05
- Use Gravity:
- Is Kinematic:
- Interpolate: None
- Collision Detection: Discrete
- Constraints

Console Project

Console

Create All Prefabs

Clear Collapse Clear on Play Error Pause Editor

- All Prefabs
- Assets
 - Standard Assets
 - Characters
 - FirstPersonChar
 - Audio
 - Prefabs
 - Scripts
 - RollerBall
 - ThirdPersonCh

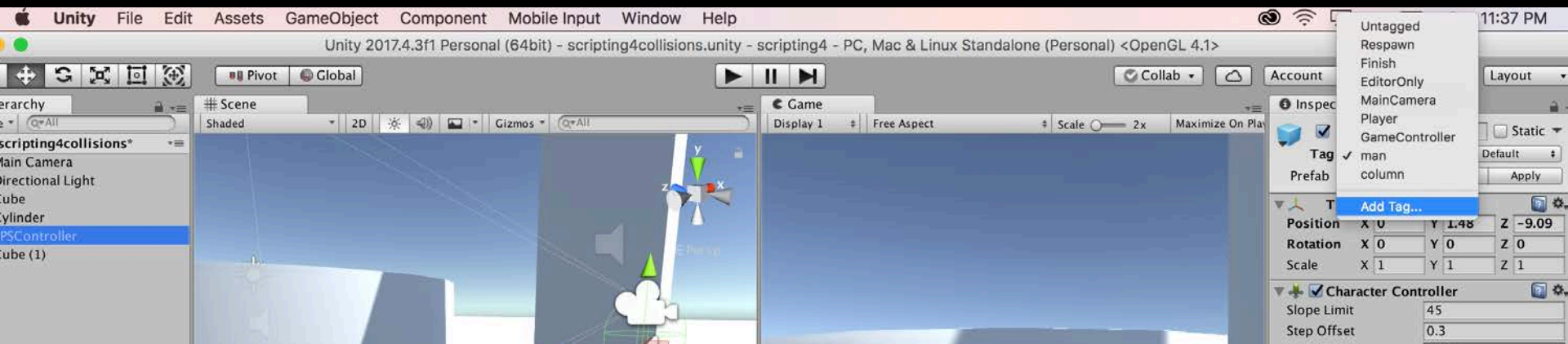
- Assets
 - Chimes
 - collisions
 - cubeScript
 - Cymbal
 - scripting4collisions
 - Standard Assets

Console area for logs and messages.

Tags

A Tag is a reference word which you can assign to one or more GameObjects. A GameObject's functionality is defined by the Components attached to it.

For example, you might define “Player” Tags for player-controlled characters and an “Enemy” Tag for non-player-controlled characters.



Collisions

Assign new tag to Cave Player controller (“Player”)

The screenshot displays the Unity 2017.4.3f1 Personal interface. The main window is split into three panels: Hierarchy, Scene, and Game. The Hierarchy panel on the left shows the scene's object structure, including 'Main Camera', 'Directional Light', 'Cube', 'Cylinder', 'FPSController', and 'Cube (1)'. The Scene panel in the center shows a 3D environment with a white ground plane and a blue sky. A player controller (a white cube with a green arrow) is positioned in the scene. The Game panel on the right shows a first-person view of the player controller. The Inspector panel on the far right shows the properties of the selected FPSController. The Tag is set to 'man'. The Character Controller component is also visible, with a Slope Limit of 45. The FPSController component has the following properties:

Property	Value
Tag	man
Layer	Default
Position	X 0, Y 1.48, Z -9.09
Rotation	X 0, Y 0, Z 0
Scale	X 1, Y 1, Z 1

The Character Controller component has the following properties:

Property	Value
Slope Limit	45
Step Offset	0.3
Skin Width	0.08
Min Move Distance	0
Center	X 0, Y 0, Z 0
Radius	0.5
Height	1.8

Collisions

```
public class collisions : MonoBehaviour {  
    public AudioClip mySound;  
  
    void OnTriggerEnter (Collider other)  
    {  
        if(other.gameObject.tag == "Player")  
        {  
            GetComponent<AudioSource> ().PlayOneShot (mySound);  
        }  
    }  
}
```

Scripting exercise 1

Add another object – a cube

Make it move forward and backward using key codes

Add another sound to your scene

Play sound when cube moves forward and collides with the cylinder

Scripting exercise 2

Create a room with 3 doors and FPS Controller character. As the character walks from door to door inside the room, and touches the doors (collision), each door should start to rotate (along the Y axis) and a new sound FX plays. As the user presses 3 different mouse buttons, the colors of 3 doors should change into different colors.

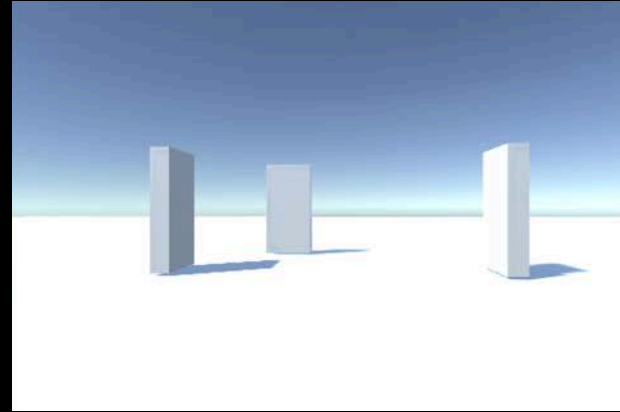
Add a “stop” action to stop all doors from rotation if the user presses Escape key.

Use a Key Code reference page here to find out the Key Codes:
<https://docs.unity3d.com/ScriptReference/KeyCode.html>

Scripting exercise 2

Incorporate 3 different scripts – one for each door

- Variables
- Functions
- Materials
- Collisions
- Key and mouse interaction inputs



Combine the various modules we covered to create an interactive scene. Use your problem solving skills to creatively combine different functions and find workable solutions.

Use a meaningful project organizational structure.
(Folders/subfolders)