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# CS/DES 427/450

## Unity Collisions/ Transformations

# Collisions

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Add Cylinder / scale it 10.1.10

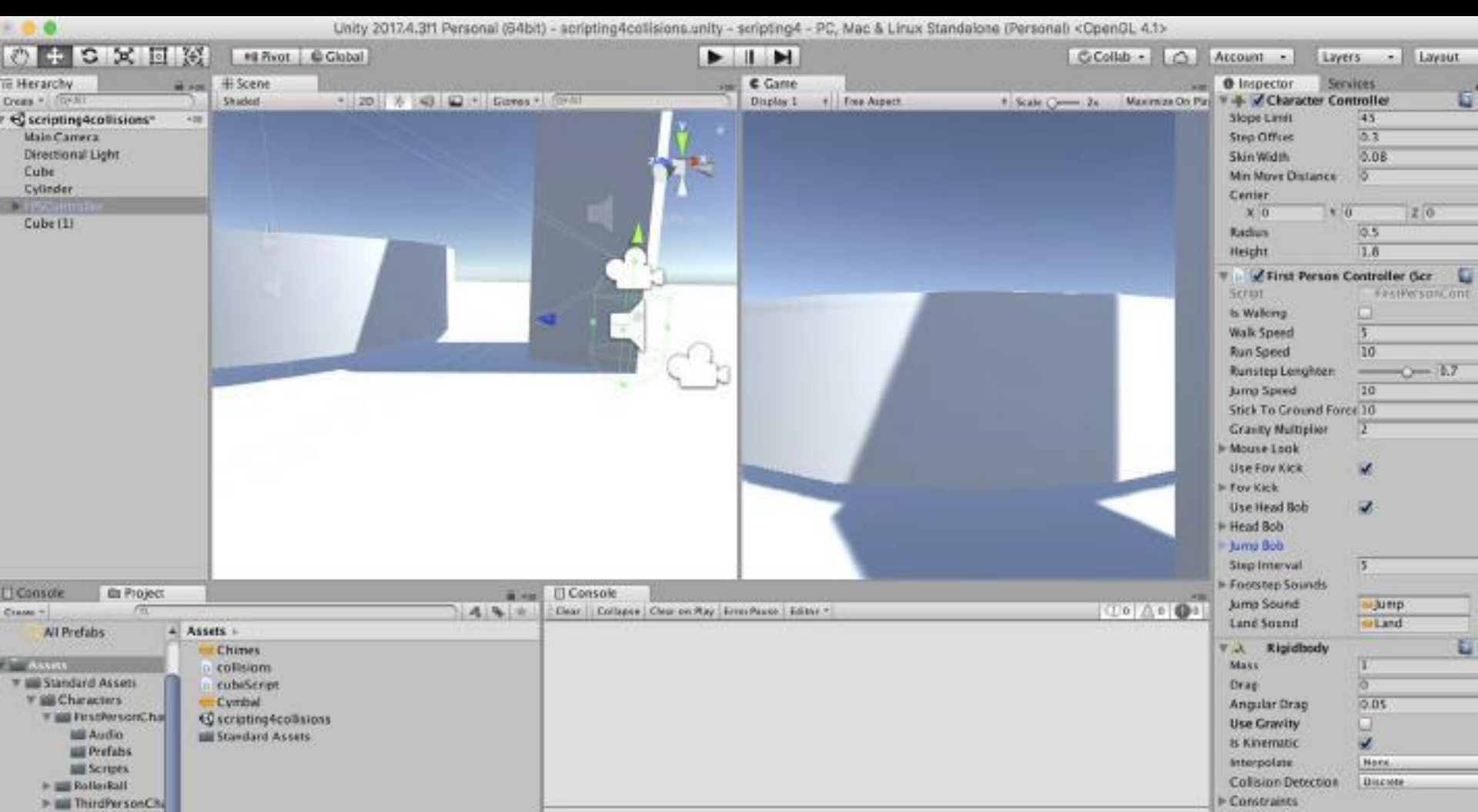
Check "Is trigger" on capsule collider component

Add audio source component & uncheck "Play on awake"

Add CAVE player /

Uncheck Use gravity in rigidbody component

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



# Collisions

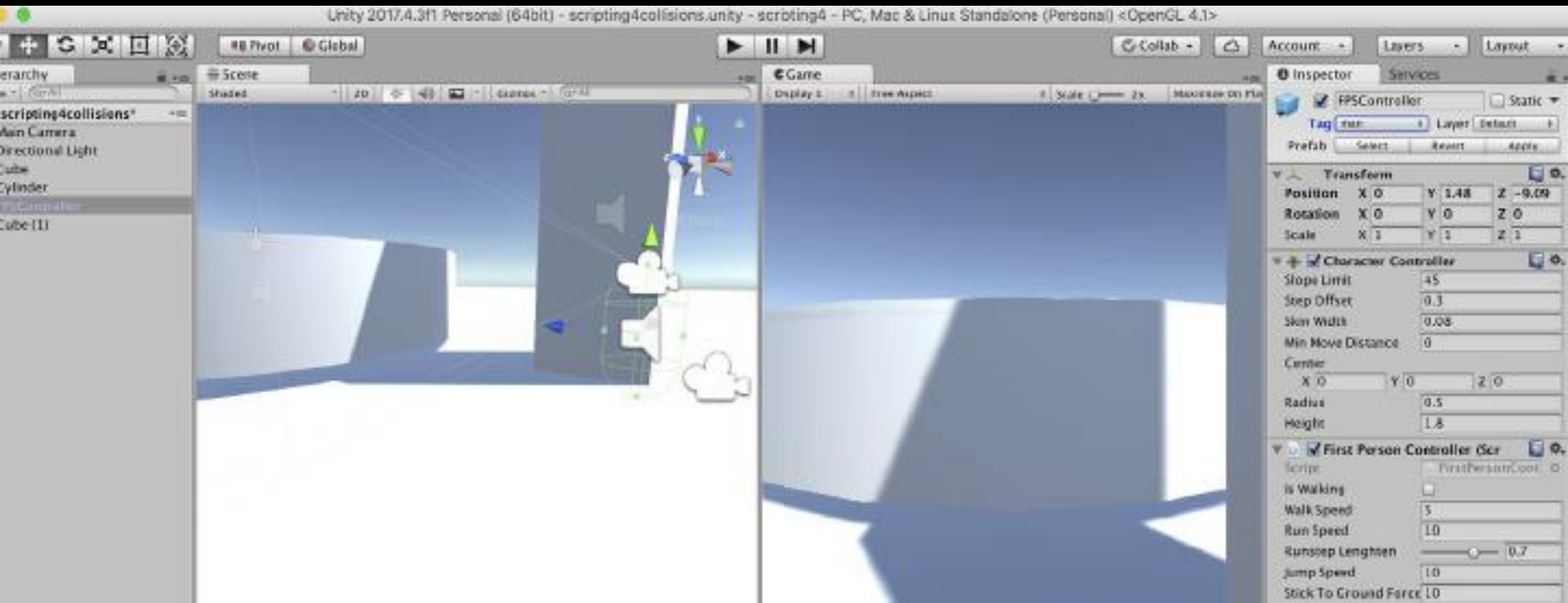
A Tag is a reference word which you can assign to one or more GameObjects.

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”)



# Collisions

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

# Collisions

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

# Exercise 1

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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



## Exercise 2

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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.

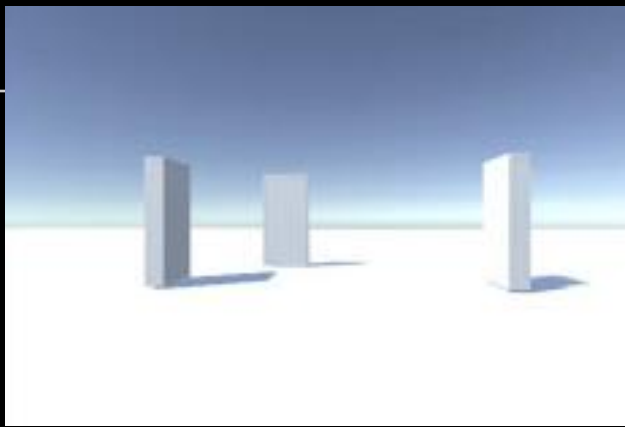
Use a Key Code reference page here to find out the Key Codes:  
<https://docs.unity3d.com/ScriptReference/KeyCode.html>

## Exercise 2

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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)