

# Intro to Scripting part 4, 5

Parenting

KeyCode

Prefabs

Instantiate

Transformations

Collisions

Tags

CAVE testing

Teleport

Collisions

Dynamic parenting

Constraints

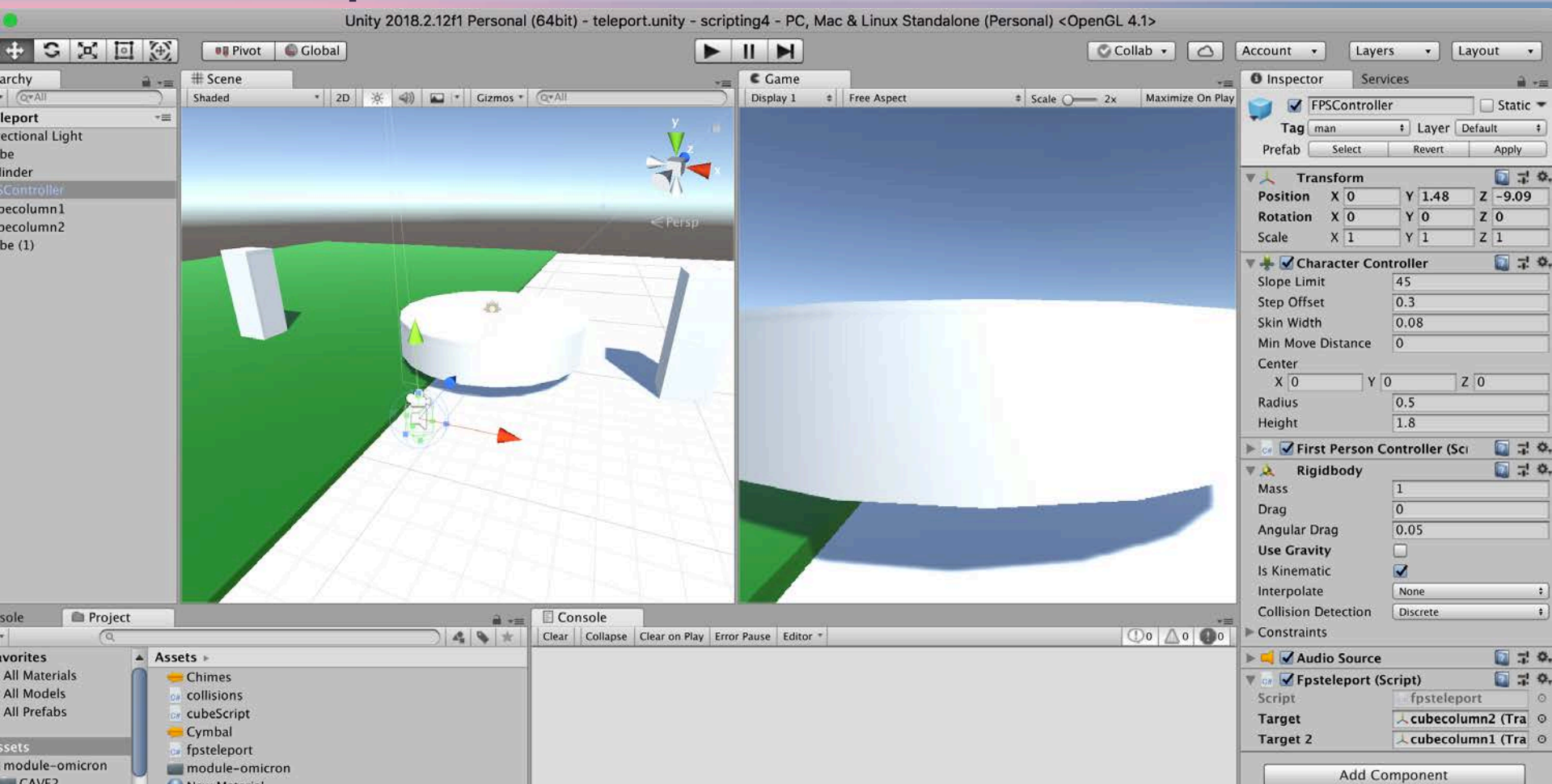
# Basic teleport

Unity 2018.2.12f1 Personal (64bit) - teleport.unity - scripting4 - PC, Mac & Linux Standalone (Personal) <OpenGL 4.1>

Inspector Services

- FPSController  Static
  - Tag: man Layer: Default
  - Prefab: Select Revert Apply
- Transform
  - Position: X 0 Y 1.48 Z -9.09
  - Rotation: X 0 Y 0 Z 0
  - Scale: X 1 Y 1 Z 1
- 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 (Sci)
- Rigidbody
  - Mass: 1
  - Drag: 0
  - Angular Drag: 0.05
  - Use Gravity:
  - Is Kinematic:
  - Interpolate: None
  - Collision Detection: Discrete
- Constraints
- Audio Source
  - Fpsteleport (Script)
    - Script: fpsteleport
    - Target: cubecolumn2 (Tra)
    - Target 2: cubecolumn1 (Tra)

Add Component



The screenshot displays the Unity 2018.2.12f1 Personal interface. The main window is split into a Scene view on the left and a Game view on the right. The Scene view shows a 3D environment with a white character controller on a white grid floor, a white cylinder, and a white cube. The Game view shows the character controller from a first-person perspective. The Inspector panel on the right shows the following components and their settings:

- FPSController**: Tag: man, Layer: Default
- Transform**: Position: X 0, Y 1.48, Z -9.09; Rotation: X 0, Y 0, Z 0; Scale: X 1, Y 1, Z 1
- 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 (Sci)**:
- Rigidbody**: Mass: 1, Drag: 0, Angular Drag: 0.05, Use Gravity: , Is Kinematic: , Interpolate: None, Collision Detection: Discrete
- Constraints**
- Audio Source**:  Fpsteleport (Script)
  - Script: fpsteleport
  - Target: cubecolumn2 (Tra)
  - Target 2: cubecolumn1 (Tra)

The bottom of the interface shows the Project panel with the Assets folder containing Chimes, collisions, cubeScript, Cymbal, fpsteleport, module-omicron, and New Material. The Console panel is also visible at the bottom.

# Basic teleport

Create two vertical cubes and position them on different platforms

The cubes will serve as teleport portals

Rename cubes:

- teleport1
- teleport2

Add game tags to each cube (ex. “column”, “mango”)

Add material to each platform to visually differentiate the locations

Create new script “fpsteleport” and assign it to FPSController

# Basic teleport

```
public class fpsteleport : MonoBehaviour {  
    public Transform target = null;  
  
    private void OnTriggerEnter(Collider other)  
    {  
  
        if(other.gameObject.tag=="column")  
            {  
                this.transform.position = target.position;  
            }  
    }  
    void Update ()  
    {  
    }  
}
```

# Basic teleport

Add variable

```
public Transform target2 = null;
```

if statement for teleport from location 2 back to location 1

add two variables to identify if the teleport has been made

```
bool firstJump = false;
```

```
bool secondJump = false;
```

# teleport

```
public class fpsteleport : MonoBehaviour {  
    public Transform target = null;  
    public Transform target2 = null;  
    bool firstJump = false;  
    bool secondJump = false;  
  
    private void OnTriggerEnter(Collider other) {  
        if(other.gameObject.tag=="column" && firstJump==false && secondJump==false )  
            {  
                this.transform.position = target.position;  
                firstJump = true;  
            }  
    }  
}
```

# teleport

```
if (other.gameObject.tag == "mango" && firstJump==false && secondJump==false )  
{  
    this.transform.position = target2.position;  
    secondJump = true;  
} }
```

# Basic teleport

Add function `OnTriggerExit` to set both jump variables to their initial pre-jump state

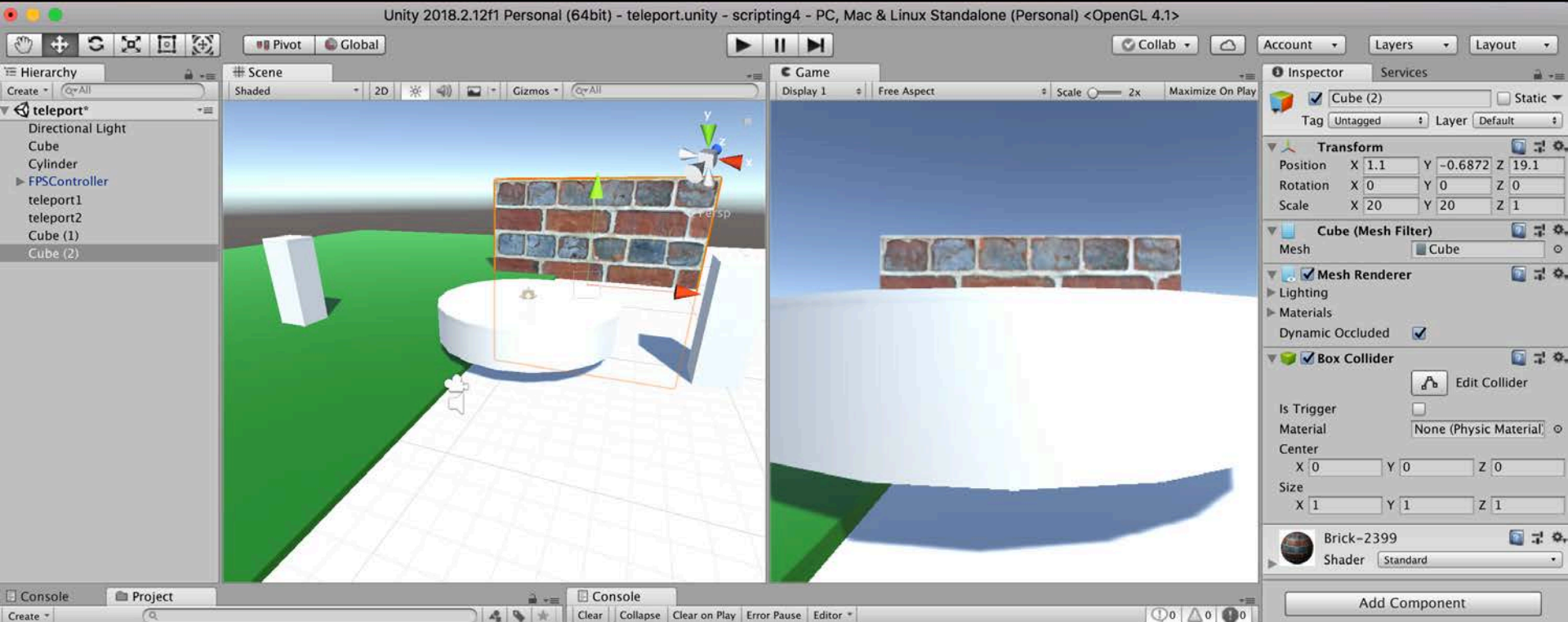


# teleport

```
private void OnTriggerExit(Collider other)
{
    if (other.gameObject.tag == "column")
    {
        secondJump = false;
    }
    if (other.gameObject.tag == "mango")
    {
        firstJump = false;
    } }

void Update () {
}}
```

# Teleport, collisions, constraints



# Teleport, collisions, constraints

## CAVE2 Testing 2

Environment –Geometry- Textures/materials

Interaction

Navigation

### Start thinking about:

- Audio (FXs, bg, narration, music, etc.)
- Special FXs (particles, environmental, magic, transformations, etc.)
- Interaction and navigation details

# Teleport, collisions, constraints

Teleport

Constraints within geometry

Change material/color

Add force

i/o mouse buttons, keyboard

Collisions

Play sounds

Emit particles

Transformations: Rotating/scaling/moving objects