Unit 2: Scripting

Lesson 4: Getting inputs

Activity 3 (⏱ 15’ minutes): Gap text

Fill the gaps with the words you’ve heard in the video.

In Unity GetKey or GetButton are way of receiving input via Unity’s Input class. The core differences between the two is that GetKey specifically names keys for you, using key codes. For example, the spacebar is represented by KeyCode.Space.

This works just fine for keyboard but it’s recommended to use GetButton instead and specify your own controls. The input manager gives you the ability to name an input and specify a key or a button for it. Then, when calling it, you can reference a name using a string: for example, “Jump”. This is a default input represented by the spacebar, but we could put in a different key or button code in order to change the input that represents Jump.

When using GetKey or GetButton these inputs have 3 states that return a boolean: true or false.

- GetKey or GetButton: This will register true or false depending on whether the button is being pressed or not. When we first press the key it then returns true on the first frame, then as we progress through frames we can check if the button is being held.
- GetButtonDown or GetKeyDown: When we first press the button, it will return true. After the first frame, holding down the button, it returns to false.
- GetButtonUp or GetKeyUp: When we release the button it shows true, but only again on the first frame.

When the button is not being touched, everything is false.

Input.GetAxis works in a similar fashion to GetButton and GetKey, but with some fundamental differences. GetKey and GetButton both return a boolean, the button is either pressed or not pressed, whilst GetAxis returns a float value between -1 and +1.

With a button press, you only consider the positive button value, but with an axis we should consider both positive and negative buttons. As well as different properties:

- The gravity of the axis affects how fast this scale returns to 0 after the button has been released.

- Sensitivity is the opposite of gravity and controls how quick the return value of the input reaches 1 or -1.
- If we were using a joystick to represent our axis then we wouldn’t necessarily want to feel an effect from very small amounts of joystick movements. To avoid this we have a dead zone.
- The snap option allows you to return 0 if both positive and negative buttons are held.