

Extension: Play Again!

Making a play again button for on our game over screen

Task 1.1: The button

Let's make a button for the player to click!

1. Make a rectangle variable and set it to a height, width and position where you want it to be.
2. In your draw function, draw the rectangle with whatever colour you want it to be

Hint

To set up a rectangle you need code that looks like this:

```
myRect = Rect((x,y), (width,height))
```

To then draw that to the screen you need code that looks like:

```
screen.draw.filled_rect(myRect, (r,g,b))
```

Task 1.2: Adding some text

Now we need the button to say something like "Play again?"

1. In your draw function, directly under where you've drawn the rectangle onto the screen, draw some text to the screen in the middle of the button that says something like play again?.
2. To make this text centered on the button make the x value the button's x value plus half its height and the y value the button's y value plus half its width

Hint

To write text onto the screen you need code that looks like this:

```
screen.draw.text("My text", center = (x,y) color = (r,g,b))
```

Task 1.3: Testing for clicks!

Now that you're displaying a button you need to test if it has been clicked.

1. Go to your `on_mouse_down()` function
2. You need to put what's called a "parameter" inside the two brackets. It needs to be called `pos`
3. Then inside the function you need an if statement to check whether `pos` is inside the button rectangle. If it is you should reset all of the values that we originally set at the beginning of the game. This includes bird's x and y values, all the pipe's x and y values, `gameOver`, and `score`, and any other values that need to be reset after a game.

Hint

To check if a point is inside a rectangle you need to use this code:

```
if myRect.collidepoint(pos):
```

★ BONUS 1.4: Pretty buttons!

Waiting for the next lecture? Try adding this bonus feature!!

Now that you've gotten the basic button code working, you can play around with it to make it look better. For this you could work with colours or the text. You could also experiment with making the button an image.

★ BONUS 1.5: Pretty code

Waiting for the next lecture? Try adding this bonus feature!!

Now that you have a button and it resets the game when clicked, let's make a function so that its easier to read.

1. Make a new function called `restart()`
2. Copy everything that you reset from your `on_mouse_down()` function into this new function
3. In the section where you were resetting all of those values, call the `restart()` function

