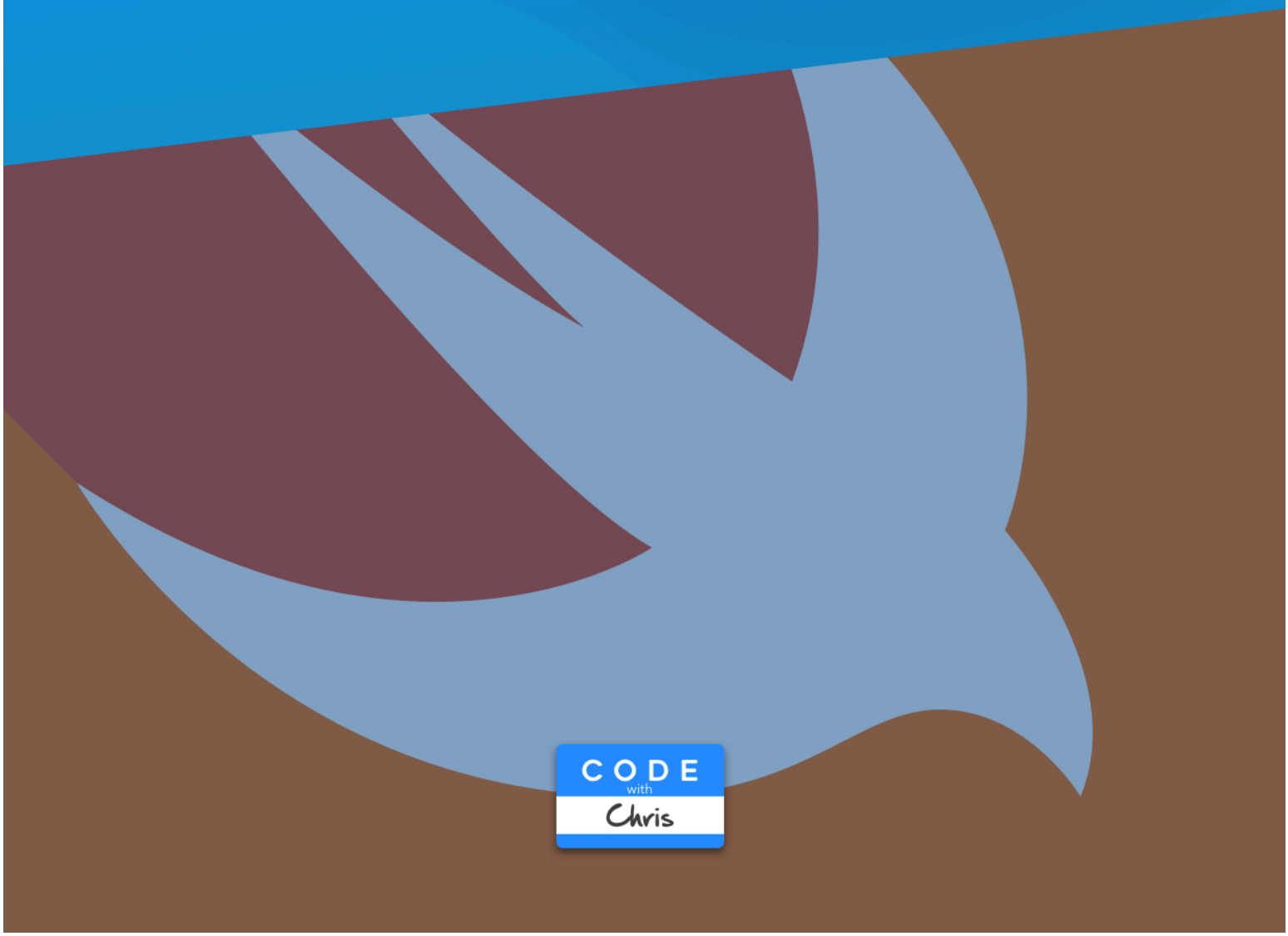
HOW TO MAKE AN APP FOR BEGINNERS

Lesson 6
Swift Basics Part 2

RECAP NOTES AND EXERCISES



CODE with Chris

Key Concepts

1. Functions are blocks of code that you execute at will.

2. Use the "func" keyword to declare a new function followed by the function name

3. Following the function name are two rounded brackets and then two curly brackets. Inside the curly brackets, you specify the code for the function.

```
func myFunction() {
    print "Hello!"
}
```

4. You can execute the code inside of a function by calling the function name followed by the two rounded brackets

5. Functions can also have input parameters to accept data into the function when you call it.

6. You can specify input parameters in between the rounded brackets when you declare a function

7. These parameters follow a parameter name:data type format and you can separate multiple parameters with a comma

```
func myFunction(name:String, age:Int) {
    print("Here's \(name), age \(age)")
}
```

8. If you do this, then whenever you call that function you'll also have to supply the data for the input parameters

9. The code inside of a function can also return a value after being called

10. To specify that a function returns data, after the rounded brackets for the parameters you can use "->" followed by the data type that the function will return.

11. If you specify a return type for the function, you'll have to use the "return" keyword inside the function to return data of the expected data type.

```
func addFourTo(number:Int) -> Int {
    return number + 4
}
```

12. All the new variables and constants that we declare inside of a function only exist within the scope of that function. This is known as variable scope.

Exercises

This exercise continues from the Swift Basics (Part 2) taught in lesson 6.

In this worksheet, you'll do 4 different exercises to practice writing functions.

Setup

We'll be doing these exercises in a Swift Playground.

Open Xcode and create a new playground
(File Menu->New->Playground).

From the list of Playground templates, just select "Blank"

Exercise 1: Basic Functions

(Solutions at the end)

Write a function called "goodMorning" that:

- Prints out "Good Morning" in the console window (use the print command to do this) when called.

Exercise 2: Function with Parameters

(Solutions at the end)

Write a function called "printTotalWithTax" that:

- Accepts a parameter called "subtotal" that is of data type Double.
- When this function is called, it will print out the subtotal multiplied by 1.13 in the console window.

Exercise 3: Function with Return Value

(Solutions at the end)

Write a function called “getTotalWithTax” that:

- Accepts a parameter called “subtotal” that is of data type Double.
- Returns a Double value.
- When this function is called, it will return the subtotal multiplied by 1.13 as the return value.
- Take the returned value from calling the function and print it out to the console.

Exercise 4: Function with Two Parameters and Return Value

(Solutions at the end)

Write a function called “calculateTotalWithTax” that:

- Accepts two parameters called “subtotal” (Double) and “tax” (Double).
- Returns a Double value.
- When called, it will return the subtotal multiplied by the tax as the return value.
- Take the returned value from calling the function and print it out to the console.

Solutions

Download the solutions for all the exercises here:
https://codewithchris.com/beginner-youtube/