**Note 12/10/14**

1. Intro to Programming in Swift  
   1. Create playground in Xcode (found under file)  
      1. Type Println("hello world!")
         1. To comment out //
      2. **Variables (Var)** are assigned and changeable. It is used to assign a variable for calling later in the code.  
         1. **String** Example – display text  
            Var hello = “Hello World!”  
            Println(hello)  
              
            you can also define the variable by stating:  
            Var hello: String = “Hello World”   
            Println(hello)
         2. **Integer** Example – changing numbers   
            Var hello = 1

Println(hello)  
hello = 2  
Println(hello)  
  
you can also define a variable by stating:  
Var hello: Int = “1”  
Println(hello)

**Float** allows you to add decimal places behind the integer   
  
**Boolean** = True / False

* + 1. **Nil** means nothing and defines a type that is **optional**  
       1. You cannot assign a variable to nill because it needs to define a type
       2. Unlike java you cannot say:  
          Var hello: String = Nil  
          Println(hello)
       3. What you can do:

Var hello: String**?** = Nil  
Var helloWorld: string = hello  
Println(hello)

If you are sure the string exists, you can unwrap with a (!):  
var hello: String = “Hello World!”  
Var helloWorld: string = hello**!**  
Println(hello)  
  
! does not change the variable type in the code, but it changes it in the context of the line not thereafter.  
  
To test if an optional exists:  
Var optional: String? = “Foo!”  
If let VariableName = optional {  
Println(VariableName)  
}

* 1. For a constant value use **Let**  
     1. To string a constant into the sentence  
        Let age = 29  
        hello = “Hello you are \(age) years old!”   
        Println(Hello)
     2. If you want a number of decades:  
        Let age = 29  
        let decades = age/10  
        hello = “Hello you are \(age) years old, you have lived \(decades) decades!”   
        Println(Hello)  
          
        \*note swift has defined age as an integer and therefore you will not be able to have an int/int = float, it will still equal an int  
          
        \*you can define age and decades as Floats to equal a float
  2. **Operators** + (addition) / (division) \* (multiplication) - (subtraction) % (remainder)

1. **Control Flow** – what code runs in what order, how many times, etc.
2. Loops:  
     
   Var Counter = )  
   While counter < 10 {  
   Println(“Hello!”)  
   Counter = counter +1  
   }  
     
   For VariableName in 0…4 {  
   Println(“Hello!”)  
   }

1. **Pull down the Lessons 3 playground ->** Lessons/Lessons03?Lessons03.playground/section-1.swift

Answers:  
// TODO: Create two variables, name and age. Name is a string, age is an integer.

var name: string = "Lauren"

var age: integer = 24

// TODO: Print "Hello {whatever the value of name is}, you are {whatever the value of age is} years old!"

var hello = "Hello \(name)! You are \(age) years old!"

Println(Hello)

// TODO: Print “You can drink” below the above text if the user is above 21. If they are above 18, print “you can vote”. If they are above 16, print “You can drive”

if age>=21 {

println("You can drink")

}

if age>=18 {

println("You can vote")

}

if age>=16 {

println("You can Drive")

}

// TODO: Print “you can drive” if the user is above 16 but below 18. It should print “You can drive and vote” if the user is above 18 but below 21. If the user is above 21, it should print “you can drive, vote and drink (but not at the same time!”.

varDriveVoteDrink = "You can drive, vote and drink (but not "

if age>=16 && age<18 {

println("You can drive")

} else if

age>=18 && age<21 {

println("You can drive and vote")

} else {

age>=21

println("You can drive, vote and drink (but not at the same time!)")

}

**Note 12/17/14**

1. Function – a series of actions that can be repeated