

Unit 2—Lesson 1:

Strings

Strings

```
let greeting = "Hello"  
var otherGreeting = "Salutations"
```

```
let joke = ""  
    Q: Why did the chicken cross the road?  
    A: To get to the other side!  
    ""  
print(joke)
```

```
Q: Why did the chicken cross the road?  
A: To get to the other side!
```

String basics

Escaping

```
let greeting = "It is traditional in programming to print \"Hello, world!\""
```

| Escape | Description |
|-----------------|--|
| <code>\"</code> | Double quote |
| <code>\\</code> | Backslash |
| <code>\t</code> | Tab |
| <code>\r</code> | Carriage return (return to beginning of the next line) |

Concatenation

```
let string1 = "Hello"  
let string2 = ", world!"  
var myString = string1 + string2 // "Hello, world!"
```

```
myString += " Hello!" // "Hello, world! Hello!"
```

Interpolation

```
let name = "Rick"  
let age = 30  
print("\(name) is \(age) years old")
```

Rick is 30 years old

Interpolation

Expressions

```
let a = 4
let b = 5
print("If a is \((a)\) and b is \((b)\), then a + b equals \((a+b)\)")
```

If a is 4 and b is 5, then a + b equals 9

Format

```
let a = 20.0
```

```
let b = 15.0
```

```
print("If a is \(a) and b is \(b), then a / b equals \(a/b)")
```

```
print(String(format: "If a is %d, and b is %d, then a / b equals %.2f", Int(a), Int(b), a/b))
```

If a is 20.0 and b is 15.0, then a / b equals 1.3333333333333333

If a is 20, and b is 15, then a / b equals 1.33

| | |
|------|------------------------------------|
| %d | Whole number |
| %f | Decimal number (with all decimals) |
| %.2f | Decimal numbers (with 2 decimals) |

String equality and comparison

```
let month = "January"
let otherMonth = "January"
let lowercaseMonth = "january"

if month == otherMonth {
    print("They are the same")
}

if month != lowercaseMonth {
    print("They are not the same.")
}
```

They are the same.

They are not the same.

String equality and comparison

Ignoring case

```
let name = "Johnny Appleseed"
if name.lowercased() == "joHnnY aPPleseeD".lowercased() {
    print("The two names are equal.")
}
```

The two names are equal.

String equality and comparison

Prefix and suffix

```
let greeting = "Hello, world!"
```

```
print(greeting.hasPrefix("Hello"))  
print(greeting.hasSuffix("world!"))  
print(greeting.hasSuffix("World!"))
```

```
true
```

```
true
```

```
false
```

String equality and comparison

Finding substrings

```
let greeting = "Hi Rick, my name is Amy."
if greeting.contains("my name is") {
    print("Making an introduction")
}
```

Making an introduction

String equality and comparison

Checking length

```
let name = "Ryan Mears"  
let count = name.count  
let newPassword = "1234"  
  
if newPassword.count < 8 {  
    print("This password is too short. Passwords should have at least 8 characters.")  
}
```

This password is too short. Passwords should have at least 8 characters.

String basics

Empty strings

```
var myString = ""  
  
if myString.isEmpty {  
    print("The string is empty")  
}
```

Unicode

```
let cow = "🐮"  
let credentials = "résumé"  
let myBook = "私の本"  
print("∞".count)
```

Unit 2—Lesson 1

Lab: Strings



Open and complete the exercises in Lab – `Strings.playground`

