

# 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)

# String basics

## Escaping

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

Escape	Description
\"	Double quote
\\	Backslash
\t	Tab
\r	Carriage return (return to beginning of the next line)

# String basics

## Empty strings

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

# String basics

## Characters

```
let a = "a" // 'a' is a string  
let b: Character = "b" // 'b' is a Character
```

# 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

# 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 equality and comparison

## Using switch

```
let someCharacter: Character = "e"
switch someCharacter {
    case "a", "e", "i", "o", "u":
        print("\(someCharacter) is a vowel.")
    default:
        print("\(someCharacter) is not a vowel.")
}
```

e is a vowel.

# Unicode

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



# Unit 2—Lesson 1

## Lab: Strings



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

