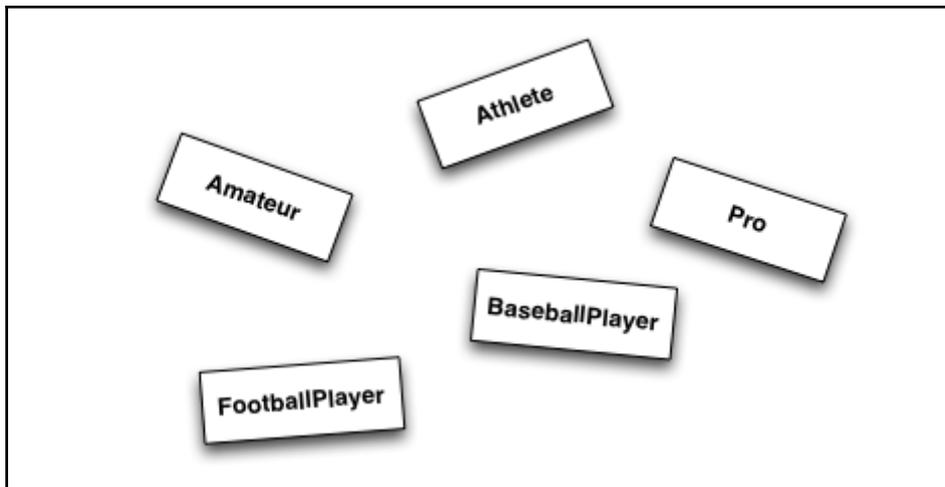
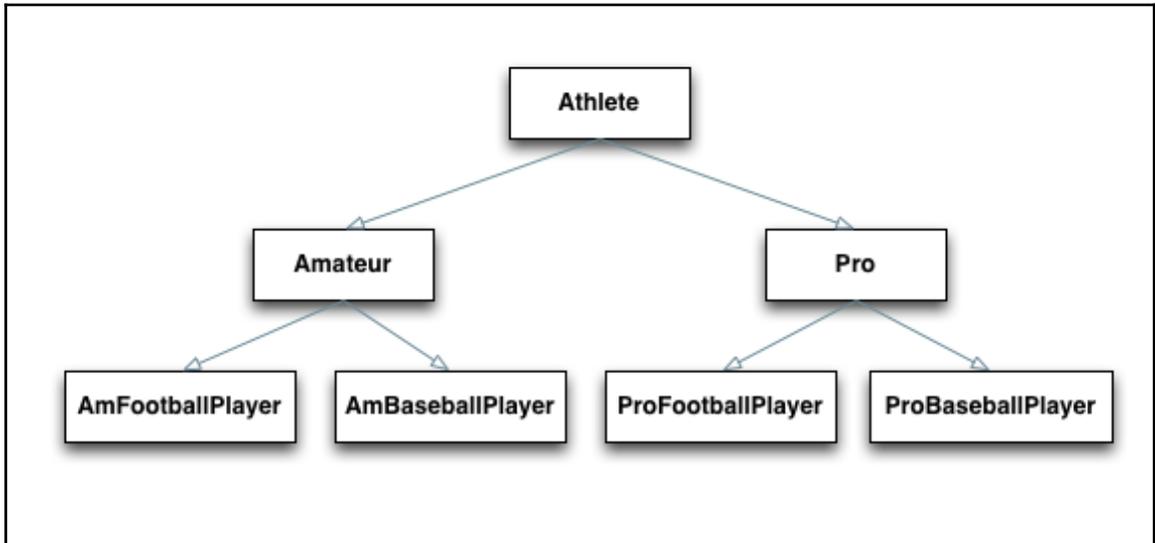
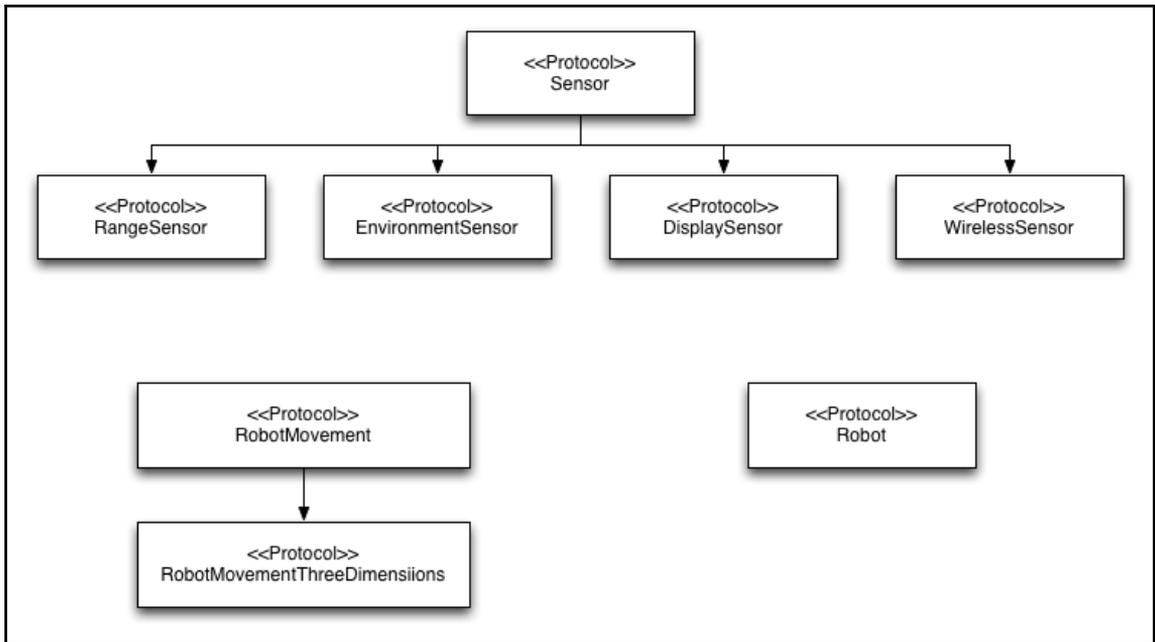


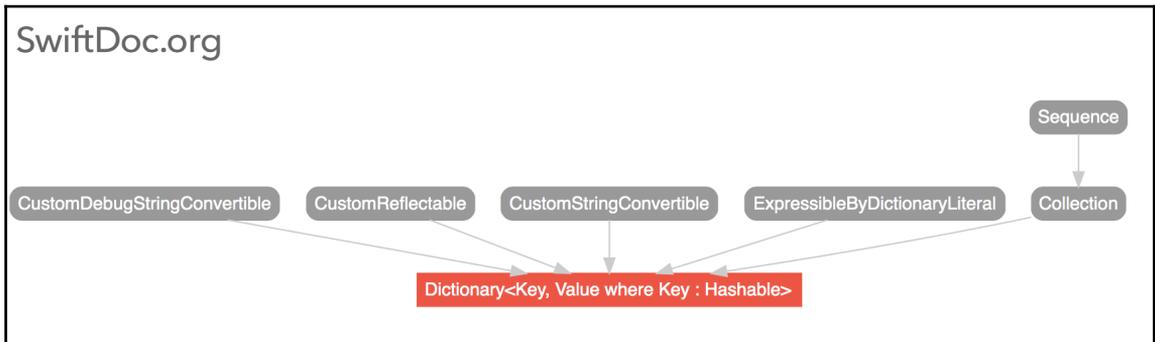
# Chapter 1: Starting with the Protocol



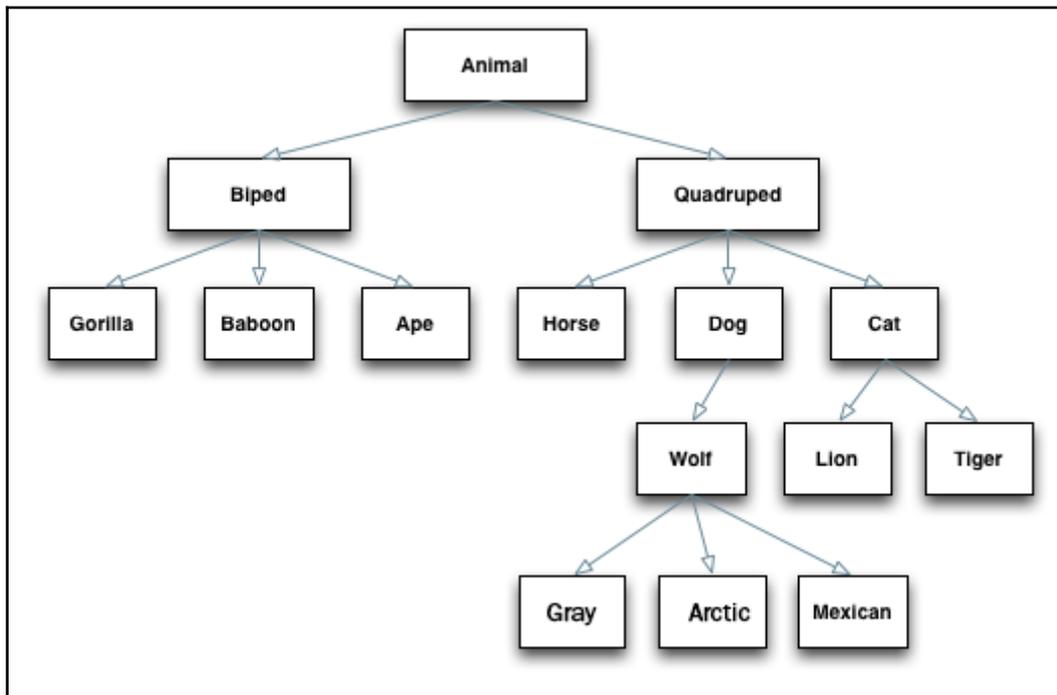
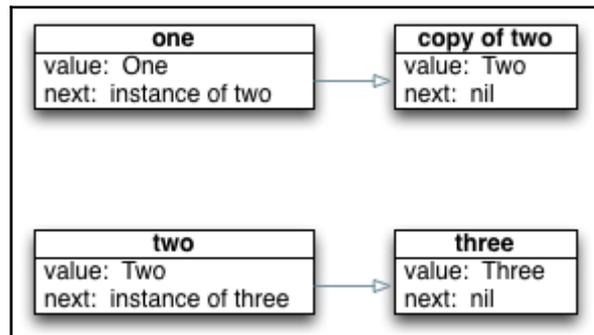
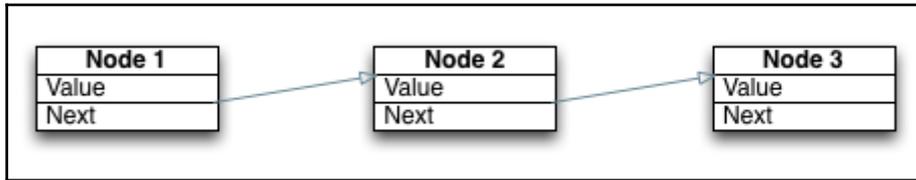


Inheritance [Collection](#), [CustomDebugStringConvertible](#), [CustomReflectable](#), [CustomStringConvertible](#), [ExpressibleByDictionaryLiteral](#), [Sequence](#)

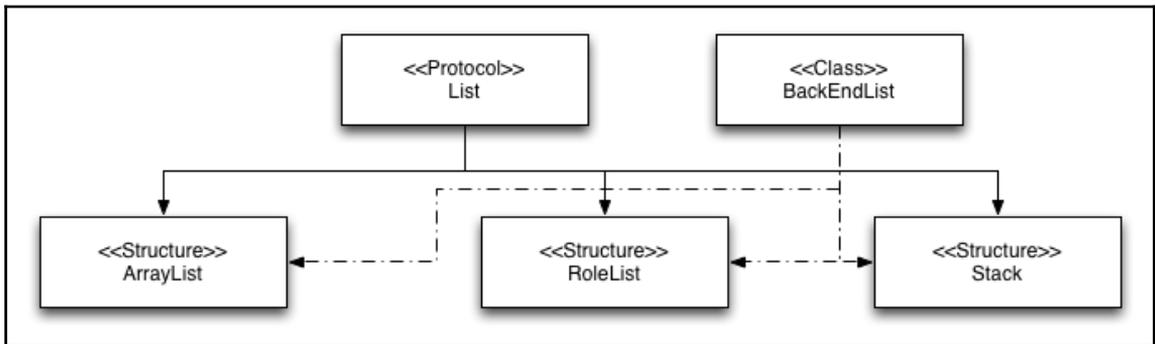
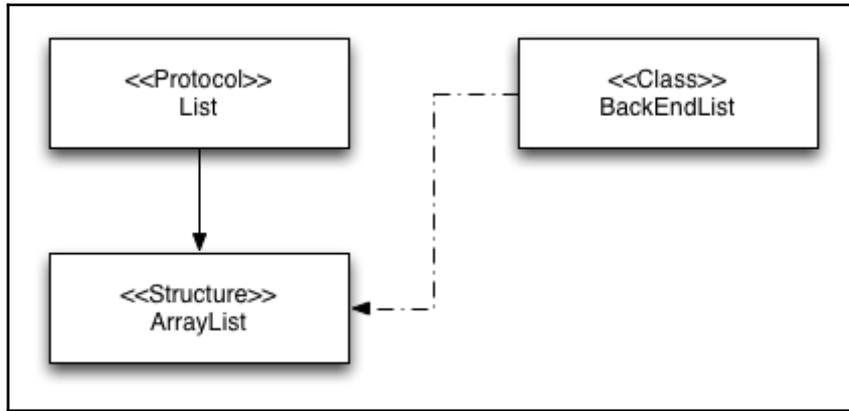
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## Chapter 2: Our Type Choices



# Chapter 4: Generics





## Array

### ON THIS PAGE

[Declaration](#)  
[Initializers](#)  
[Instance Variables](#)  
[Subscripts](#)  
[Instance Methods](#)  
[Conditionally Inherited Items](#)

### DISPLAY

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### SWIFT VERSION

Swift 3.1 (Xcode 8.3b2) -

```
struct Array<Element>
```

An ordered, random-access collection.

Arrays are one of the most commonly used data types in an app. You use arrays to organize your app's data. Specifically, you use the `Array` type to hold elements of a single type, the array's `Element` type. An array can store any kind of elements---from integers to strings to classes.

Swift makes it easy to create arrays in your code using an array literal: simply surround a comma separated list of values with square brackets. Without any other information, Swift creates an array that includes the specified values, automatically inferring the array's `Element` type. For example:

```
// An array of 'Int' elements
let oddNumbers = [1, 3, 5, 7, 9, 11, 13, 15]

// An array of 'String' elements
let streets = ["Albemarle", "Brandywine", "Chesapeake"]
```

You can create an empty array by specifying the `Element` type of your array in the declaration. For example:

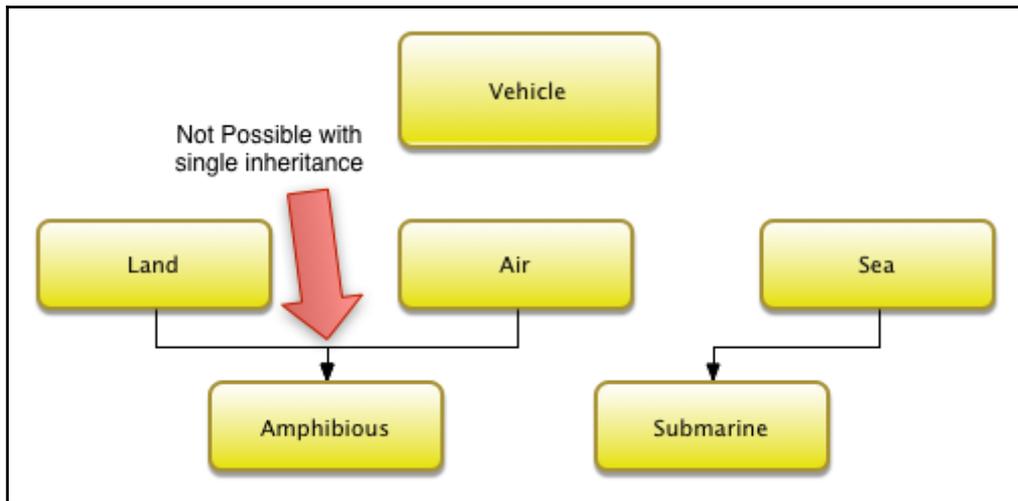
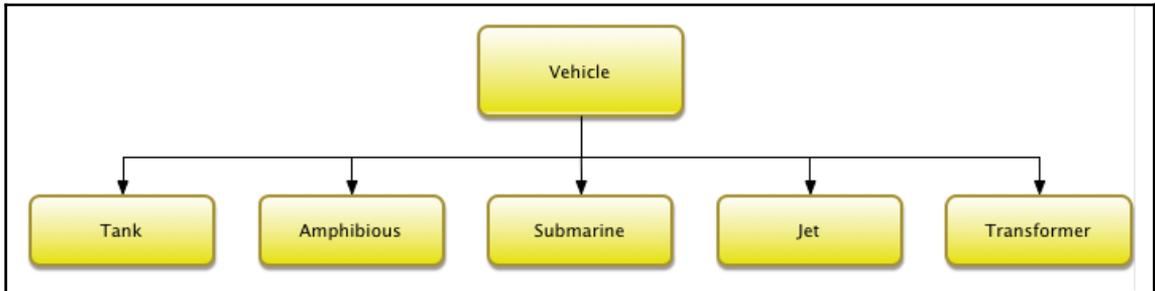
```
// Shortened forms are preferred
var emptyDoubles: [Double] = []

// The full type name is also allowed
var emptyFloats: Array<Float> = Array()
```

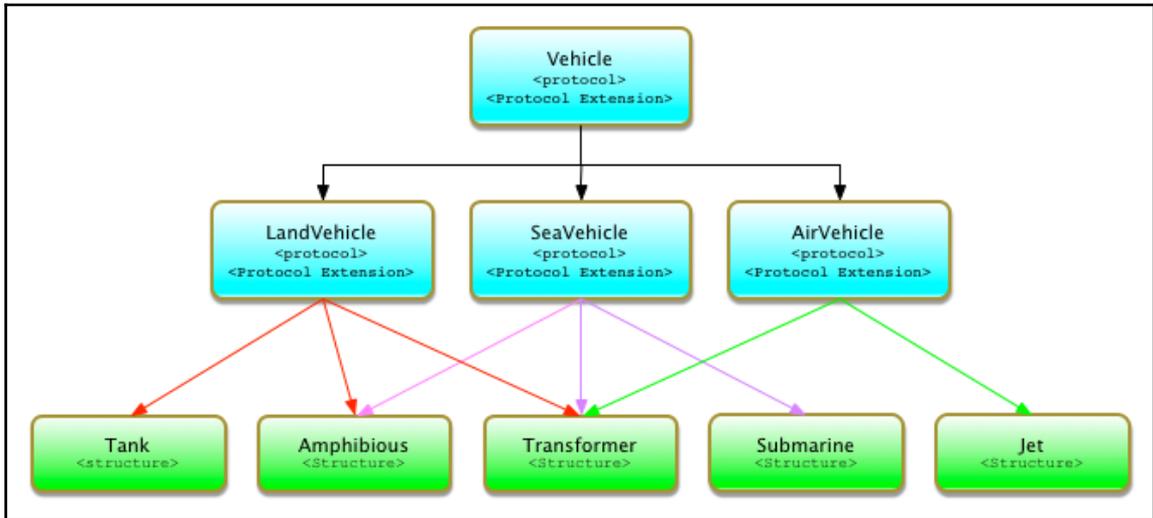
If you need an array that is preinitialized with a fixed number of default values, use the `Array(repeating:count:)` initializer.

```
var digitCounts = Array(repeating: 0, count: 10)
print(digitCounts)
// Prints "[0, 0, 0, 0, 0, 0, 0, 0, 0, 0]"
```

# Chapter 5: Object-Oriented Programming



# Chapter 6: Protocol-Oriented Programming



# Chapter 8: Case Studies

