

Introduction to Swift

Part 5: Dictionaries

What Are Dictionaries?

- ⚙ Dictionaries are key/value pairs
 - ⚙ Dictionary of room numbers to names: 201: "Sam's Room"
 - ⚙ Dictionary of names to ages: "Ray": 34
- ⚙ Optimized for quick lookup
- ⚙ Rule of thumb:
 - ⚙ **Arrays**: Use anytime you need an ordered list
 - ⚙ **Dictionaries**: Use anytime you need fast lookup by key



Declaring Dictionaries

... = [key 1 : value 1 , key 2 : value 2 , ...]

- ⚙ Keys and Values are strongly typed
- ⚙ Lookup values are always optionals
- ⚙ Classes need to implement the Hashable protocol to be used as a lookup.

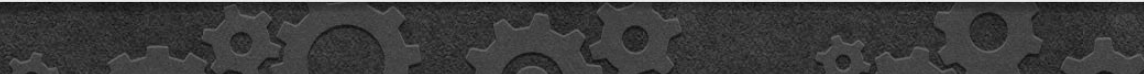
Dictionary Bridging

- ⚙️ Dictionaries seamlessly bridge to NSDictionaries
- ⚙️ Keys and Values must be instances of a class or bridgeable to a class.
- ⚙️ NSDictionaries bridged to Swift become AnyObject

```
let myDictionary = ["Book" : "Rendezvous with Rama"]  
var bridgedDictionary = myDictionary as NSDictionary
```

```
let cocoaDictionary = NSDictionary(object: "Hello", forKey: "World")  
var swiftDictionary = cocoaDictionary as? Dictionary<String,String>
```


Demo



Challenge Time!

- ⚙️ Make an dictionary with:
 - ⚙️ key: "Oberyn", value: "Spear"
 - ⚙️ key: "Arya", value: "Sword"
 - ⚙️ key: "Ygritte", value: "Bow"
- ⚙️ Add to the dictionary:
 - ⚙️ key: "Tyrion", value: "Crossbow"
- ⚙️ Append to the "Arya" value using the + operator: " (Needle)"
- ⚙️ Remove entries for all dead characters!

