



# iOS Development

Swift 4

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# Swift

“Swift is a general-purpose programming language built using a modern approach to safety, performance, and software design patterns.”

[Not just for iOS, NodeJS-like webserver in Swift](#)

# Introduction to Swift

```
import UIKit // Imports UIKit module

// Create a constant. Implicit caste
// to String type
var str = "Hello, playground"
```

# Introduction to Swift

```
import Foundation // Imports Foundation module

// Create a constant. Implicitly set to
// to Float type
let interestRate = 0.04

// Explicit
let initialPrincipal:Float = 100
```

# Mutability (Swift 4)

Immutable: `let String`

Mutable: `var String`

Immutable: `let Array`

Mutable: `var Array`

Immutable: `let Dictionary`

Mutable: `var Dictionary`

Immutable: `let Data`

Mutable: `var Data`

# Introduction to Swift - Functions

```
func greet(person: String, day: String) -> String
{
    return "Hello \(person), today is \(day)."
```

  

```
}

greet(person: "Bob", day: "Tuesday")
```



# Introduction to Swift - Classes

```
class NamedShape {  
    var numberOfSides: Int = 0  
    var name: String  
    init(name: String) {  
        self.name = name  
    }  
    func simpleDescription() -> String {  
        return "A shape with \(numberOfSides) sides."  
    }  
}
```

# Introduction to Swift - Instantiation

```
var namedShapeInstance = NamedShape("shape name")
```

```
let simpleDescriptionString: String =  
namedShapeInstance.simpleDescription()
```

Excerpt From: Apple Inc. "The Swift Programming Language (Swift 3 Beta)." iBooks. <https://itun.es/us/k5SW7.1>

# Introduction to Swift - Unicode

```
"let  $\pi$  = 3.14159  
let 你好 = "你好世界"  
let 🐶🐮 = "dogcow"
```

Excerpt From: Apple Inc. "The Swift Programming Language (Swift 3 Beta)." iBooks. <https://itun.es/us/k5SW7.1>

```
39  
40  
41 let 🇺🇸 = "Greatest ever!"  
42  
43
```

# Introduction to Swift - Loops

```
while( Bool ){  
    // Do something until Bool is false  
}
```

# Introduction to Swift - Loops

```
for index in 0 ..< 10 {  
    print("\(index) is the index")  
}
```

```
for index in 0 ... 10 {  
    print("\(index) is the index")  
}
```

# **Xcode and Playgrounds**

Demo