

Swift

Code snippets

Principles

- Modern syntax
- Beautiful and natural code
- Readable and maintainable
- Expressiveness

Topics

- Enums (Storyboard ids, urls, colors, images)
- Extensions (views, strings)
- Clousures
- Type alias

Enumerations

Simple to define, simple to use

Defines a common type for a group of related values in a type-safe way

– *The Swift Programming Language*

Basic enumeration

```
enum SomeEnumeration {  
    // enumeration definition goes here  
}
```

Basic enumeration

```
enum Direction {  
    case Right  
    case Left  
}
```

Single line declaration

```
enum Direction {  
    case Right, Left  
}
```

Use

```
var direction = Direction.Left  
  
direction = .Right  
  
if direction == .Right {  
    // code  
}
```


Using other types

```
enum Scenes: String {  
    case Main = "MainView"  
    case Detail = "DetailView"  
}  
  
let scene = Scenes.Detail.rawValue  
  
let viewController =  
    self.storyboard?.instantiateViewControllerWithIdentifier(scene)
```

```
enum Scenes: String {  
    case Main = "MainView"  
    case Detail = "DetailView"  
  
    var value: String {  
        get {  
            return self.rawValue  
        }  
    }  
}  
  
let scene = Scenes.Detail.value
```

```
enum Scenes: String {  
    case Main = "MainView"  
    case Detail = "DetailView"  
  
    func value() -> String {  
        return self.rawValue  
    }  
}  
  
let scene = Scenes.Detail.value()
```

Using other types

```
enum Theme {  
    case Auto, Life  
}
```

```
enum Theme {  
    case Auto, Life  
  
    func color() -> UIColor {  
  
    }  
}
```

```
enum Theme {  
    case Auto, Life  
  
    func color() -> UIColor {  
        switch self {  
            case .Auto:  
                return UIColor.blueColor()  
            case .Life:  
                return UIColor.whiteColor()  
        }  
    }  
}
```

```
self.backgroundColor = Theme.Auto.color()
```


Enum inner Enum

```
enum Paths {  
  
    enum Auth: String {  
        case Login = "/users/login"  
        case Logout = "/users/logout"  
    }  
  
    enum Accounts: String {  
        case Create = "/accounts/create"  
        case Update = "/accounts/update"  
    }  
  
}
```

```
let path = Paths.Users.Login.value  
  
let url = NSURL(string: path)
```

Help with assets

```
enum Assets: String {  
  
    case User = "user-icon"  
    case Phone = "phone-icon"  
  
}
```

```
enum Assets: String {  
  
    case User = "user-icon"  
    case Phone = "phone-icon"  
  
    func image() -> UIImage {  
        return UIImage(named: self.rawValue)!  
    }  
  
}
```

```
enum Assets: String {  
  
    case User = "user-icon"  
    case Phone = "phone-icon"  
  
    func image() -> UIImage {  
        return UIImage(named: self.rawValue)!  
    }  
  
}  
  
imageView.image = Assets.Phone.image()
```

```
imageView.image = Assets.Phone.image()
```


Extensions

Where the magic happens

Extensions add new functionality to
an existing class, structure,
enumeration, or protocol type

– *The Swift Programming Language*

The problem

```
var text = " Apple "  
// " Apple "
```

```
let charset =  
CharacterSet.whitespaceAndNewlineCharacterSet()  
text.stringByTrimmingCharactersInSet(charset)  
// "Apple"
```

`text.trim()`

Basic syntax

```
extension SomeType {  
    // new functionality to add to SomeType goes here  
}
```

String extension

```
extension String {  
  
    func trim() -> String {  
  
    }  
  
}
```

String extension

```
extension String {  
  
    func trim() -> String {  
        let charset =  
            NSCharacterSet.whitespaceAndNewlineCharacterSet()  
        return self.stringByTrimmingCharactersInSet(charset)  
    }  
  
}
```

```
text.trim()  
"Apple"
```


Background problem

```
let window = UIApplication.sharedApplication().keyWindow!  
window.backgroundColor = UIColor.yellowColor()
```

UIApplication extension

```
extension UIApplication {  
  
    var backgroundColor: UIColor?  
  
    // ❌ Extensions may not contain stored properties  
  
}
```

UIApplication extension

```
extension UIApplication {  
  
    var backgroundColor: UIColor? {  
        set {  
  
        }  
        get {  
  
        }  
    }  
  
}
```

UIApplication extension

```
extension UIApplication {  
    class var backgroundColor: UIColor? {  
        set {  
            let window = UIApplication.sharedApplication().keyWindow!  
            window.backgroundColor = newValue  
        }  
        get {  
            let window = UIApplication.sharedApplication().keyWindow!  
            return window.backgroundColor  
        }  
    }  
}
```

```
UIApplication.backgroundColor = UIColor.yellowColor()
```

Protocol extensions

Protocol extensions

```
extension SomeType: SomeProtocol, AnotherProtocol {  
    // implementation of protocol requirements goes here  
}
```

Allows you organize your

```
class SomeViewController: UIViewController {  
    // code goes here  
}
```

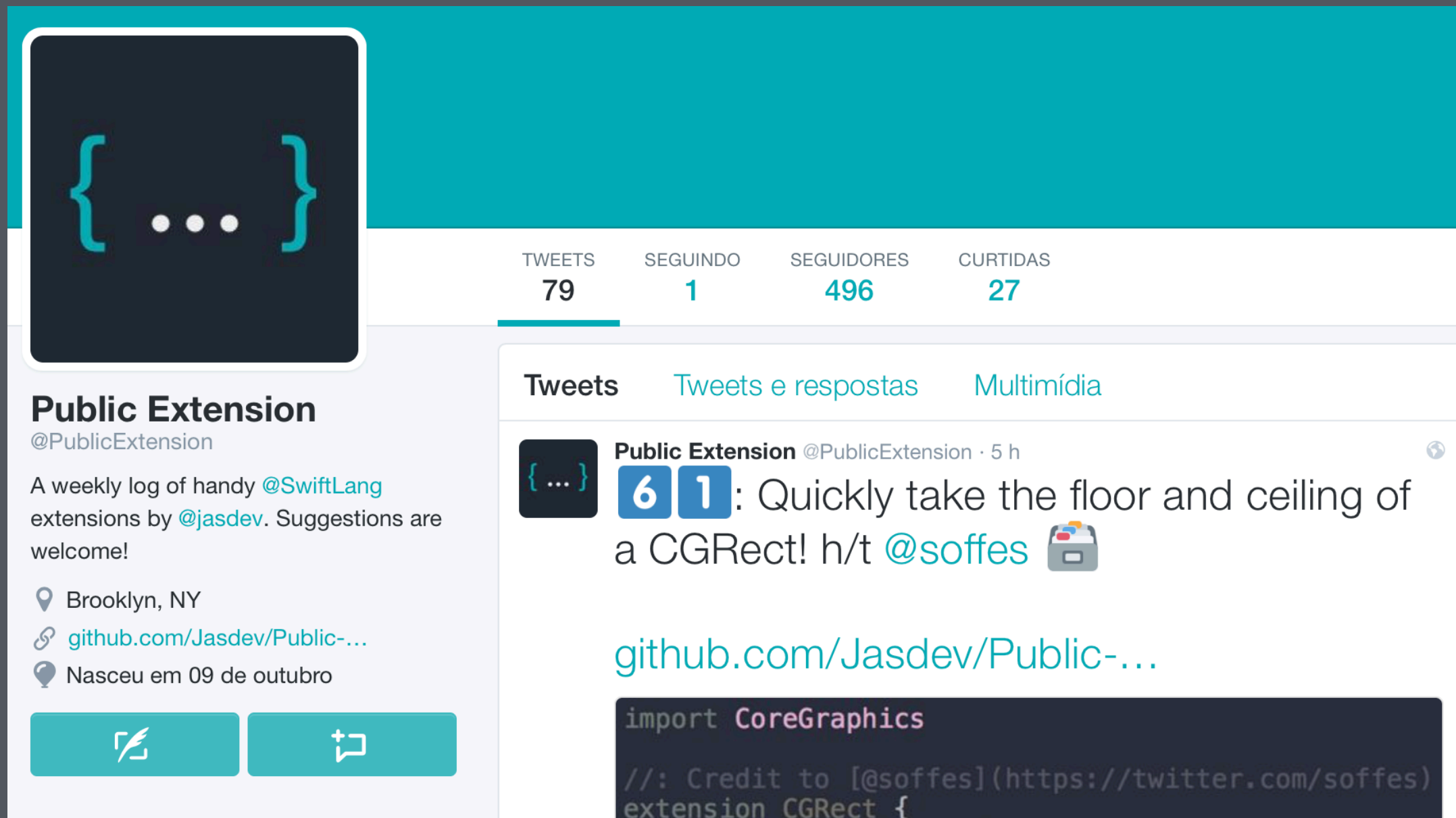

Allows you organize your

```
class SomeViewController: UIViewController, UITableViewDataSource {  
    // code goes here  
}
```

Allows you organize your

```
class SomeViewController: UIViewController, UITableViewDataSource {  
  
    func tableView(tableView: UITableView, numberOfRowsInSection section: Int) -> Int {  
        return 1  
    }  
  
    func tableView(tableView: UITableView, numberOfRowsInSection section: Int) -> Int {  
        return items.count  
    }  
  
    func tableView(tableView: UITableView, cellForRowAtIndexPath indexPath: NSIndexPath) -> UITableViewCell {  
        return tableView.dequeueReusableCellWithIdentifier("id")!  
    }  
  
}
```

@PublicExtension



Public Extension
@PublicExtension

A weekly log of handy @SwiftLang extensions by @jasdev. Suggestions are welcome!

Brooklyn, NY
github.com/Jasdev/Public-...
Nasceu em 09 de outubro

TWEETS 79 SEGUINDO 1 SEGUIDORES 496 CURTIDAS 27

Tweets Tweets e respostas Multimídia

Public Extension @PublicExtension · 5 h

61: Quickly take the floor and ceiling of a CGRect! h/t @soffes 🗄️

github.com/Jasdev/Public-...

```
import CoreGraphics

//: Credit to [@soffes](https://twitter.com/soffes)
extension CGRect {
```

github.com/Jasdev/Public-Extension

The screenshot shows the GitHub repository page for 'Jasdev / Public-Extension'. At the top, the repository name is displayed with 'Watch' (6) and 'Star' (82) buttons. Below this is a navigation bar with tabs for 'Code', 'Issues' (0), 'Pull requests' (0), 'Wiki', 'Pulse', and 'Graphs'. A description reads: 'A weekly log of handy Swift extensions'. Below the description, statistics show '97 commits', '1 branch', '0 releases', and '1 contributor'. A toolbar includes a branch selector set to 'master', a green 'New pull request' button, and buttons for 'New file', 'Upload files', and 'Find file'. The HTTPS URL 'https://github.com/Jasdev/Pi' is shown with a download icon. The commit history table lists three entries: 'Jasdev Fixing intersperse' (latest commit c51f79), 'PublicExtension.playground' (Fixing intersperse), and '.gitignore' (10/9/2015 Extensions and initial commit). Below the table, the 'README.md' file is selected and its content is displayed, starting with the title 'Public-Extension'.

Jasdev / Public-Extension

Watch 6 Star 82

Code Issues 0 Pull requests 0 Wiki Pulse Graphs

A weekly log of handy Swift extensions

97 commits 1 branch 0 releases 1 contributor

Branch: master New pull request New file Upload files Find file HTTPS https://github.com/Jasdev/Pi Download

Jasdev	Fixing intersperse	Latest commit c51f79
PublicExtension.playground	Fixing intersperse	
.gitignore	10/9/2015 Extensions and initial commit	7
README.md	Renaming playground page	

README.md

Public-Extension

Allows you organize your

```
class SomeViewController: UIViewController {
    // code goes here
}

extension SomeViewController: UITableViewDataSource {

    func tableView(tableView: UITableView, numberOfRowsInSection section: Int) -> Int {
        return 1
    }

    func tableView(tableView: UITableView, numberOfRowsInSection section: Int) -> Int {
        return items.count
    }

    func tableView(tableView: UITableView, cellForRowAtIndexPath indexPath: NSIndexPath) -> UITableViewCell {
        return tableView.dequeueReusableCellWithIdentifier("id")!
    }

}
```

Clousures

a.k.a. blocks

Closures are self-contained blocks of functionality that can be passed around and used in your code

– *The Swift Programming Language*

Closures syntax

```
{ (parameters) -> (return type) in  
    // code  
}
```

Signature

```
(parameters) -> (return type)
```


Closure in a method signature

```
func POST(URLString: String!,  
          success: ((task: NSURLSessionDataTask!, object: AnyObject!) -> Void)!,  
          failure: ((task: NSURLSessionDataTask!, error: NSError!) -> Void)!) {  
  
}
```

Closure in a method signature

```
func POST(URLString: String!,  
          success: ((task: NSURLSessionDataTask!, object: AnyObject!) -> Void)!,  
          failure: ((task: NSURLSessionDataTask!, error: NSError!) -> Void)!) {  
  
}
```

```
(task: NSURLSessionDataTask!, object: AnyObject!) -> Void
```

Closure in a method signature

```
func POST(URLString: String!,
          success: ((task: NSURLSessionDataTask!, object: AnyObject!) -> Void)!,
          failure: ((task: NSURLSessionDataTask!, error: NSError!) -> Void)!) {

}
```

```
(task: NSURLSessionDataTask!, object: AnyObject!) -> Void
```

```
(parameters) -> (return type)
```

(in) -> (out)

`() -> ()`

Type Aliases

Type aliases define an alternative name for an existing type

Type Aliases syntax

```
typealias AudioSample = UInt16
```

Type Aliases syntax

```
 typealias AudioSample = UInt16
```

```
 typealias Success =
```


Type Aliases syntax

```
typealias AudioSample = UInt16
```

```
typealias Success = (parameters) -> (return type)
```

Type Aliases syntax

```
typealias AudioSample = UInt16
```

```
typealias Success = (task: NSURLSessionDataTask!, object: AnyObject!) -> Void
```

Type Aliases syntax

```
typealias AudioSample = UInt16
```

```
typealias Success = (task: NSURLSessionDataTask!, object: AnyObject!) -> Void
```

```
typealias Failure = (task: NSURLSessionDataTask!, error: NSError!) -> Void
```

Type Aliases syntax

```
typealias AudioSample = UInt16
```

```
typealias Success = (task: NSURLSessionDataTask!, object: AnyObject!) -> Void
```

```
typealias Failure = (task: NSURLSessionDataTask!, error: NSError!) -> Void
```

```
func POST(URLString: String!,  
          success: Success!,  
          failure: Failure!) {  
  
}
```

Type Aliases syntax

```
func POST(URLString: String!,  
          success: Success!,  
          failure: Failure!) {  
  
}
```

Just to remember

```
func POST(URLString: String!,  
          success: ((task: NSURLSessionDataTask!, object: AnyObject!) -> Void)!,  
          failure: ((task: NSURLSessionDataTask!, error: NSError!) -> Void)!) {  
  
}
```

```
func POST(URLString: String!,  
          success: Success!,  
          failure: Failure!) {  
  
}
```

Q & A

Thank you!

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