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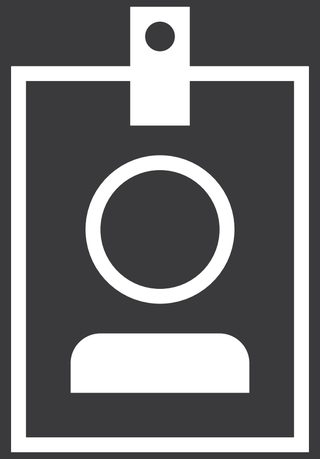
swift workshop

Anton McConville



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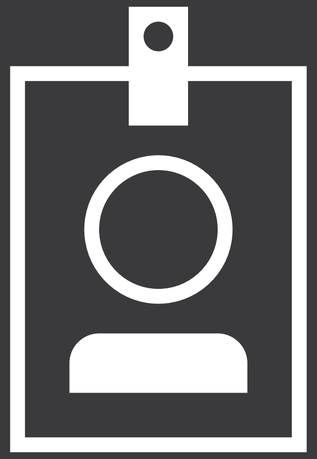

Anton McConville

Developer Advocate - IBM **Bluemix**

@antonmc

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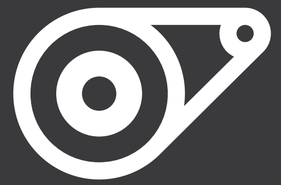
What’s in store …

why swift?

working with swift



demo and walkthrough

future steps

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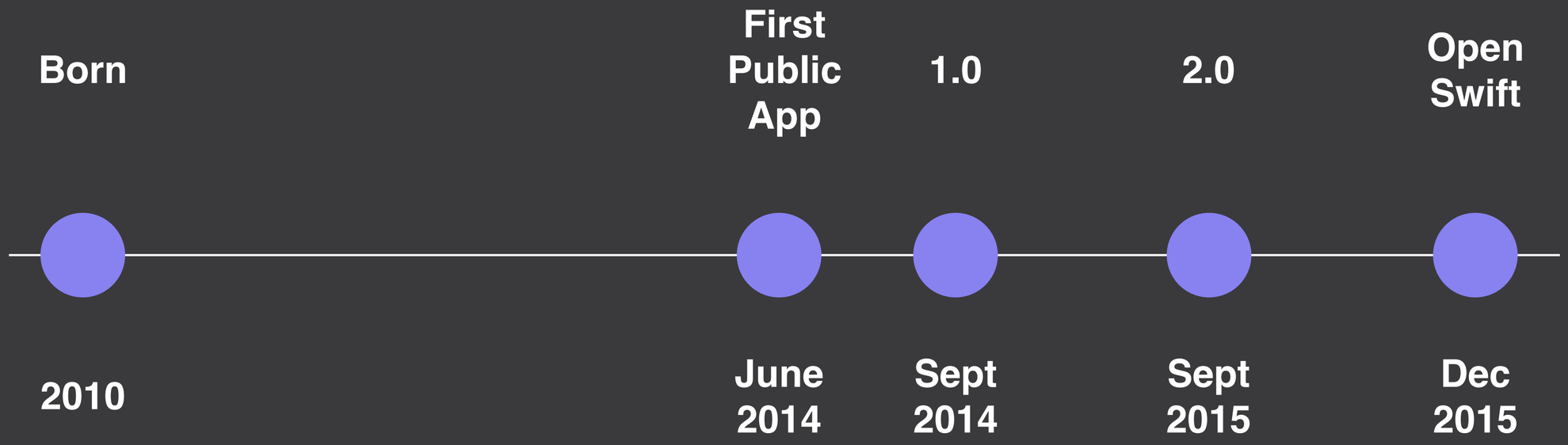

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why swift?

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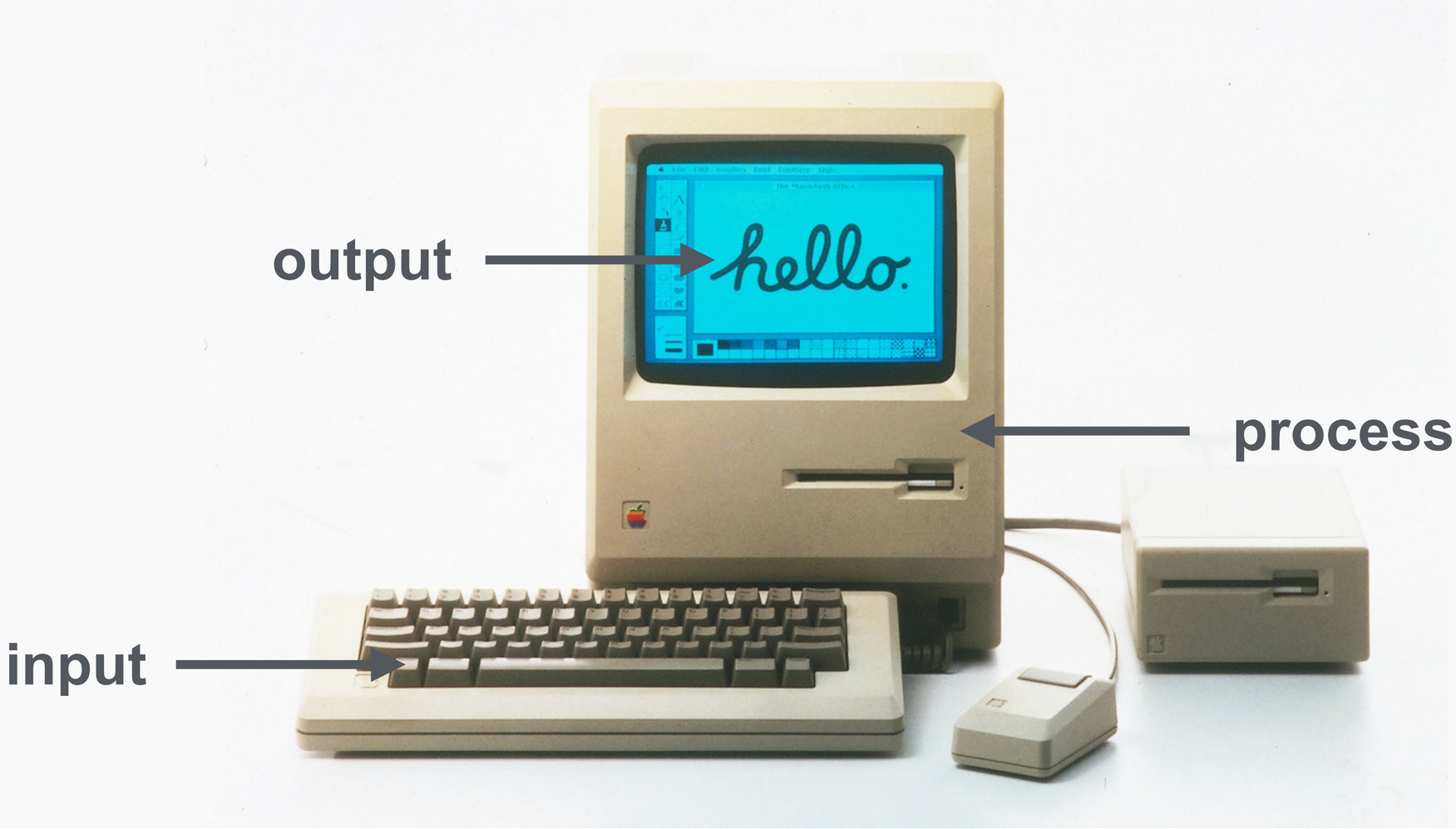

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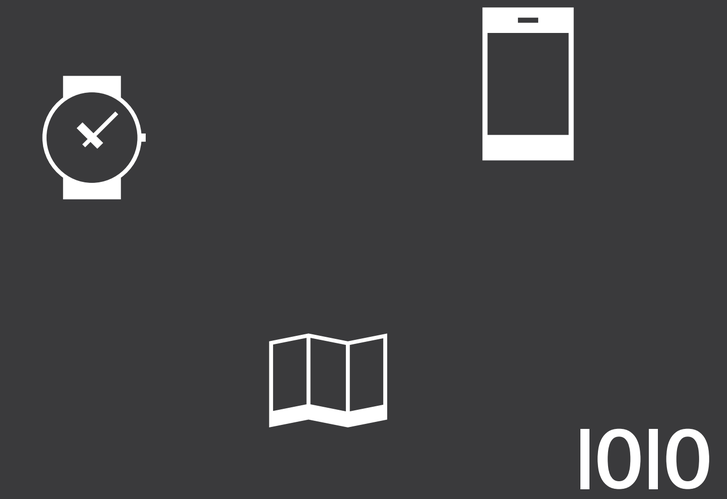
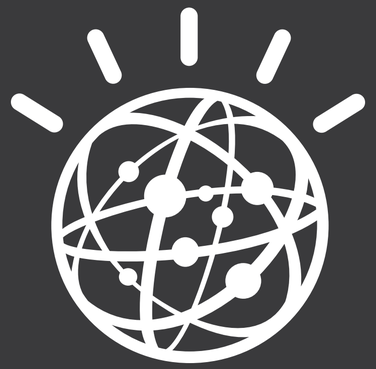
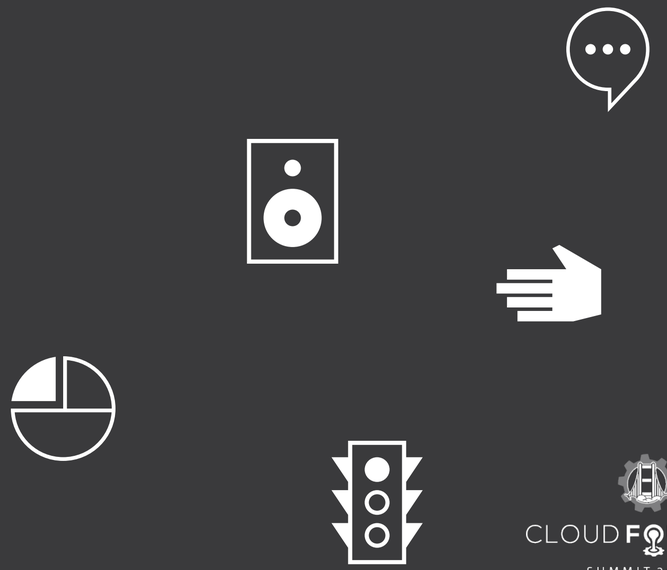
input

process



output





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Swift. A modern programming language that is safe, fast, and interactive.

Swift is a powerful and intuitive programming language for iOS, OS X, tvOS, and watchOS. **Writing Swift code is interactive and fun, the syntax is concise yet expressive, and apps run lightning-fast.** Swift is ready for your next project — or addition into your current app — because Swift code works side-by-side with Objective-C.

https://swiftlang.ng.bluemix.net

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Full stack

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Full stack

Compiled

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Full stack

Compiled

Future friendly?

working with swift

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where to get it …

swift.org

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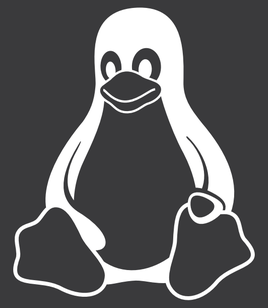
compatibility



linux

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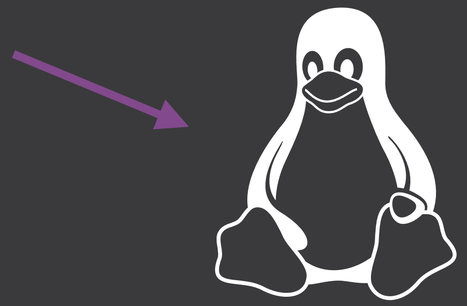
compatibility

early days still



linux

os x

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package manager

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package manager

Swift organizes code into **modules**. Each module specifies a namespace and enforces access controls on which parts of that code can be used outside of the module.

A program may have all of its code in a single module, or it may import other modules as **dependencies**.

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packages

A **package** consists of **Swift source files** and **a manifest file**.

The manifest file, called Package.swift, defines the package's name and its contents using the PackageDescription module.

A **package has one or more targets**. Each target specifies a product and may declare one or more dependencies.

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package.swift

```
import PackageDescription

let package = Package(
    name: "project",
    targets: [],
    dependencies: [
        .Package(url: "https://github.com/apple/example-package.git",
                 majorVersion: 1),
    ]
)
```


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structure

```
project
├── Sources
│   ├── main.swift
│   ├── another.swift
│   └── stuff.swift
└── Package.swift
```


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build

> swift build

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build

```
project
└── .build
    └── debug
        ├── project.a
        ├── project.o
        ├── project.swiftdoc
        └── project.swiftmodule
```


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run

```
> .build/debug/Server
```


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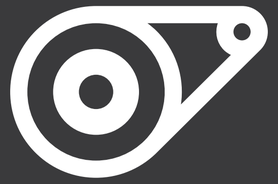

demo and walkthrough

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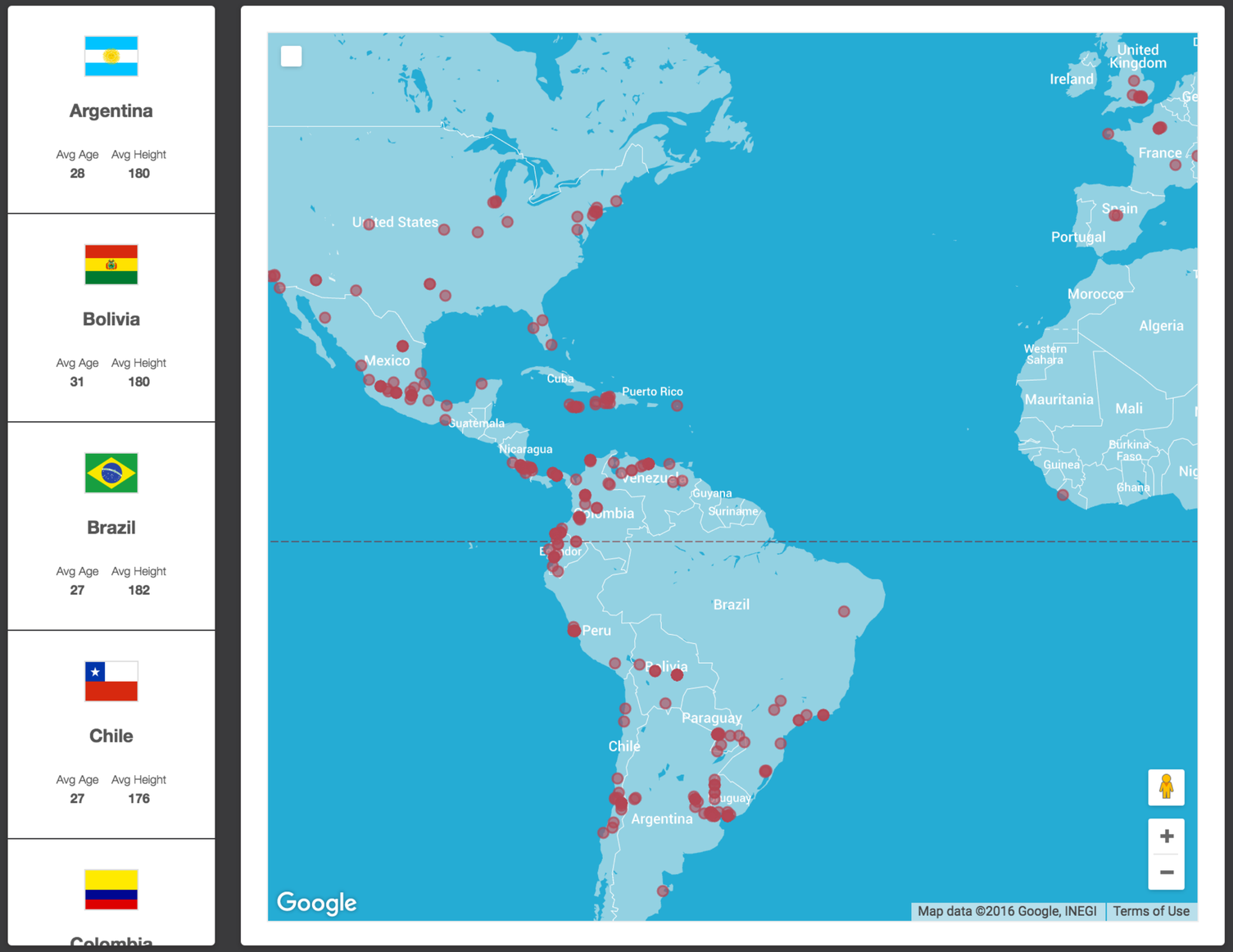
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Avg Age 28
Avg Height 180
Bolivia
Avg Age 31
Avg Height 180
Brazil
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Avg Height 182
Chile
Avg Age 27
Avg Height 176
Colombia
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Mexico
Cuba
Puerto Rico
Guatemala
Nicaragua
Venezuela
Guyana
Suriname
Colombia
Ecuador
Peru
Brazil
Bolivia
Paraguay
Chile
Argentina
Uruguay
United Kingdom
Ireland
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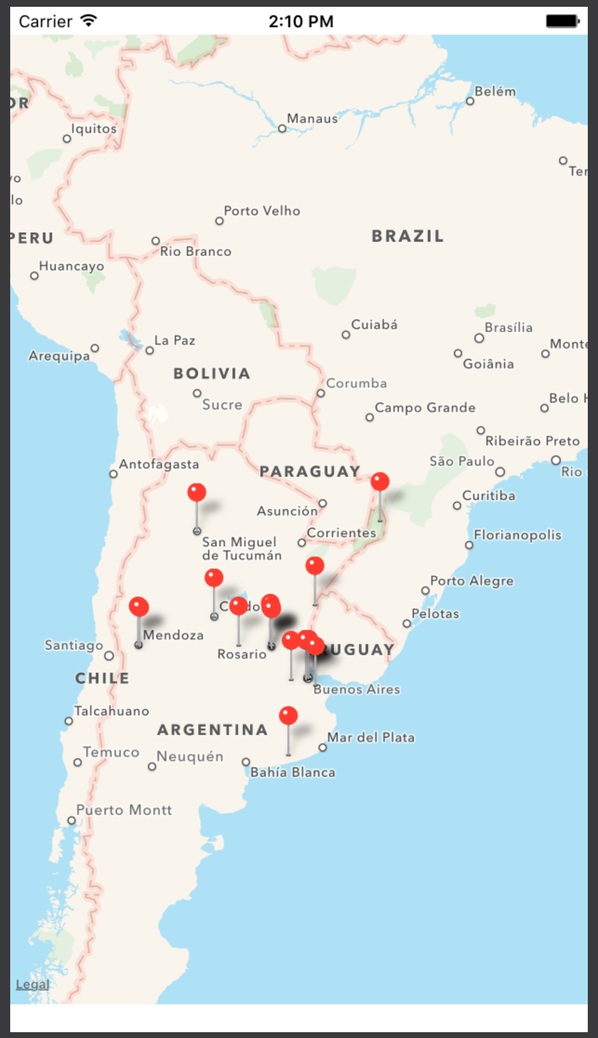

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https://github.com/IBM-Bluemix/swift-helloworld

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future steps

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Kitura

web framework

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Kitura

Swift 3

evolution

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Kitura

Swift 3

Windows?

more platforms

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Bluemix & Swift

http://www.ibm.com/cloud-computing/bluemix/swift/

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open swift packages

https://swiftpkgs.ng.bluemix.net/

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This workshop

https://github.com/antonmc/swift-workshop

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bluemix.net

swift.org

thanks :)

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