

# YOUR FIRST iOS APP WITH SWIFT



BY STOCARD



Mark



Lukas



Stocard



Swift



iOS App

Who of you ...

has been to our backend event?

Who of you knows ...

Java?

JavaScript?

C or C++?

Objective C?

Swift?



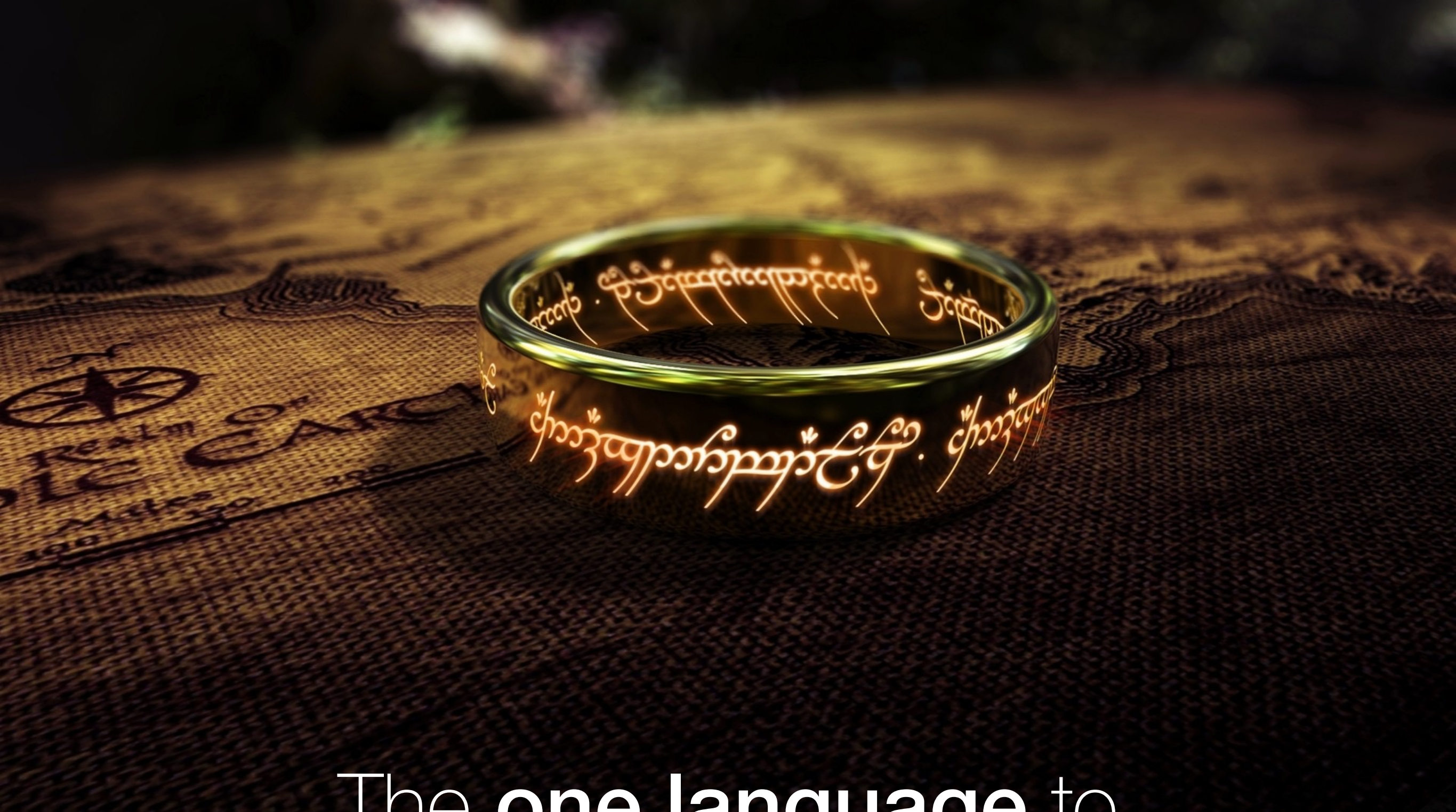
Swift

Why Swift?

The **future** for all Apple  
related development



**#9** popular language in just  
two years and growing fast



The **one language** to  
rule them all

It is **fun** and **easy** to use

What is Swift?

~~“Swift is a programming  
language for iOS Apps”~~

Swift is a general-purpose  
programming language

Swift is ...

“safe”

“expressive”

“enjoyable”

Apple



Swift is ...

compiler-based

typesafe

scripting-like syntax

readable parameters



= language + standard library



Integrates with existing  
**obj-c** apps

Let's learn Swift programming

*Live Session*

# Summary

Swift is ...

compiler-based

typesafe

scripting-like syntax

readable parameters

~~“Just move the ? and ! around  
until it compiles”~~

Swift forces you to think about  
optionals for good reasons

- Use **optional chaining** with `?` as a default, but remember that nothing may happen
- Use **optional binding** with `if let` if you need to unwrap the optional, and handle the `else` appropriately
- Use **force unwrapping** with `!` if the variable should never be `nil`, and you want the app to crash otherwise
  - If it should never be `nil`, why is it an optional in the first place?

# Resources

- **Swift homepage**  
<https://swift.org>
- **Swift language guide as book**  
[https://developer.apple.com/library/ios/documentation/Swift/Conceptual/  
Swift\\_Programming\\_Language/index.html](https://developer.apple.com/library/ios/documentation/Swift/Conceptual/Swift_Programming_Language/index.html)
- **Swift language guide as playground**  
[https://developer.apple.com/sample-code/swift/  
downloads/Standard-Library.zip](https://developer.apple.com/sample-code/swift/downloads/Standard-Library.zip)



# Resources

- **Swift source code on Github**  
<https://github.com/apple/swift>
- **Swift mailing list**  
<https://swift.org/community/#mailing-lists>
- **IBM Bluemix Server-Side Swift**  
<http://www.ibm.com/cloud-computing/bluemix/swift/>



iOS App

# iOS Development

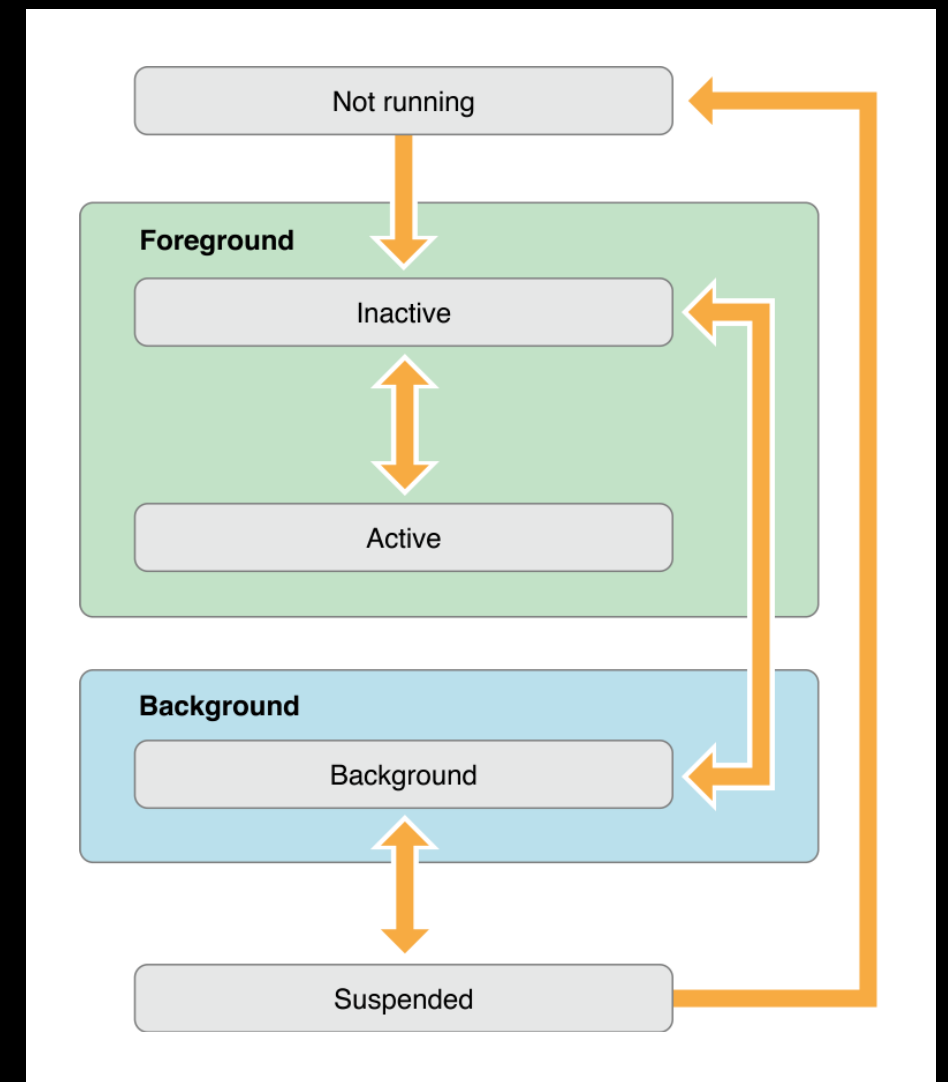
# Become developer for iOS

- Active community of developers
- Well documented
- Easy to learn
- Wide-spread

# iOS App structure

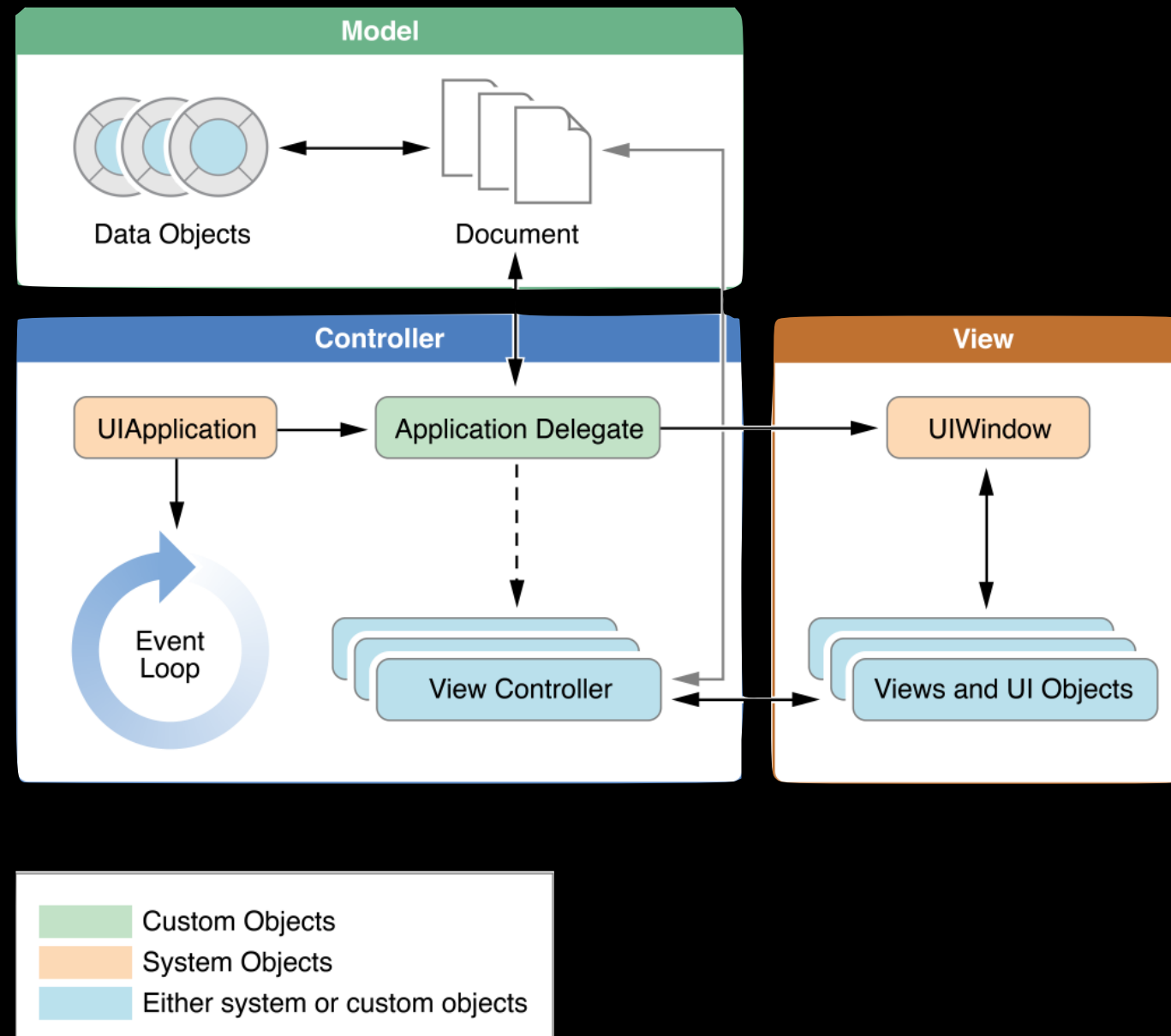
# Launch your app in AppDelegate

- implements **UIApplicationDelegate** protocol
- is notified about lifecycle changes
- handle launch (with options)
- handle url opening
- specify entry point for your UI
- handle push notification permissions



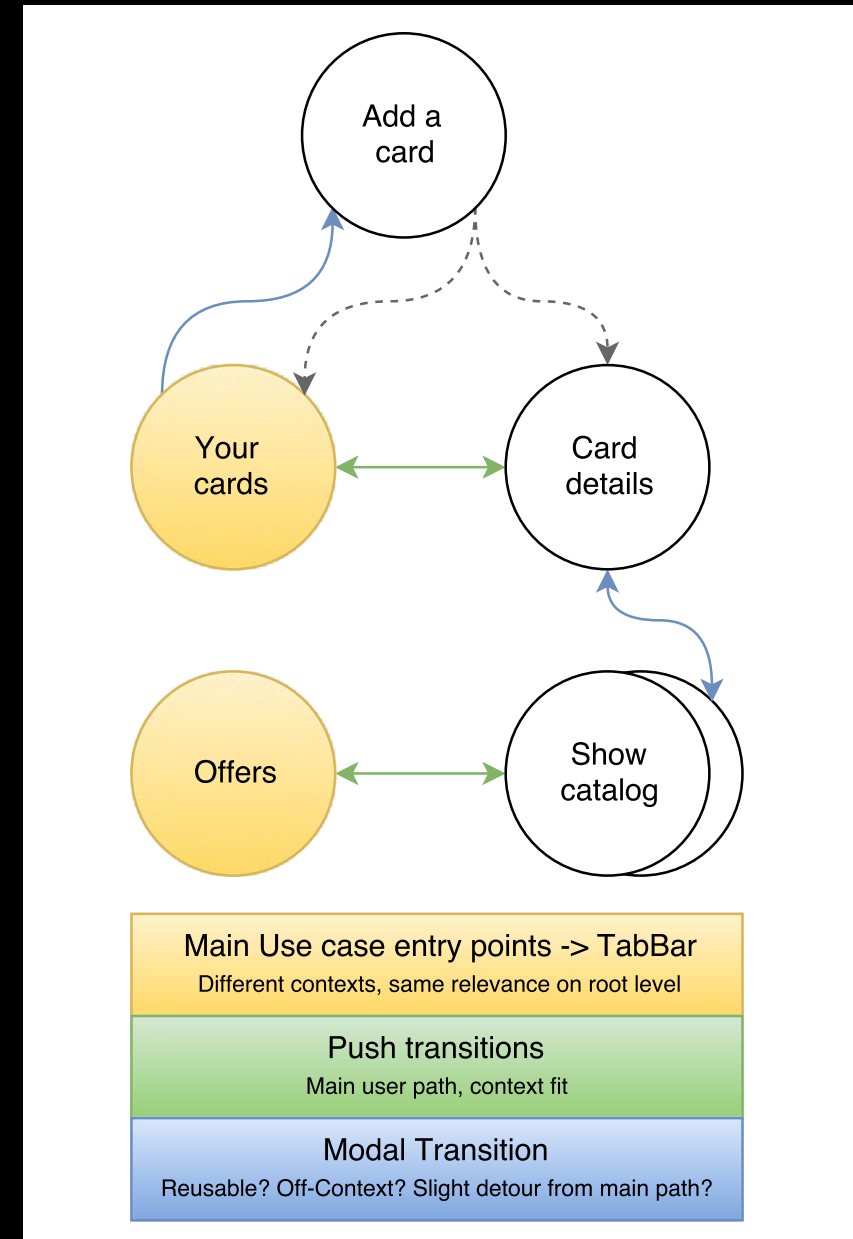
Lifecycle states

# Get used to the MVC pattern



# Build your user interface

- Stick to Apple UI design guidelines
- Use dynamic layouting to ensure compatibility with devices
- Think in tables
- Keep a clear navigation



Navigation path example



Let's build our app!

# Let's do it



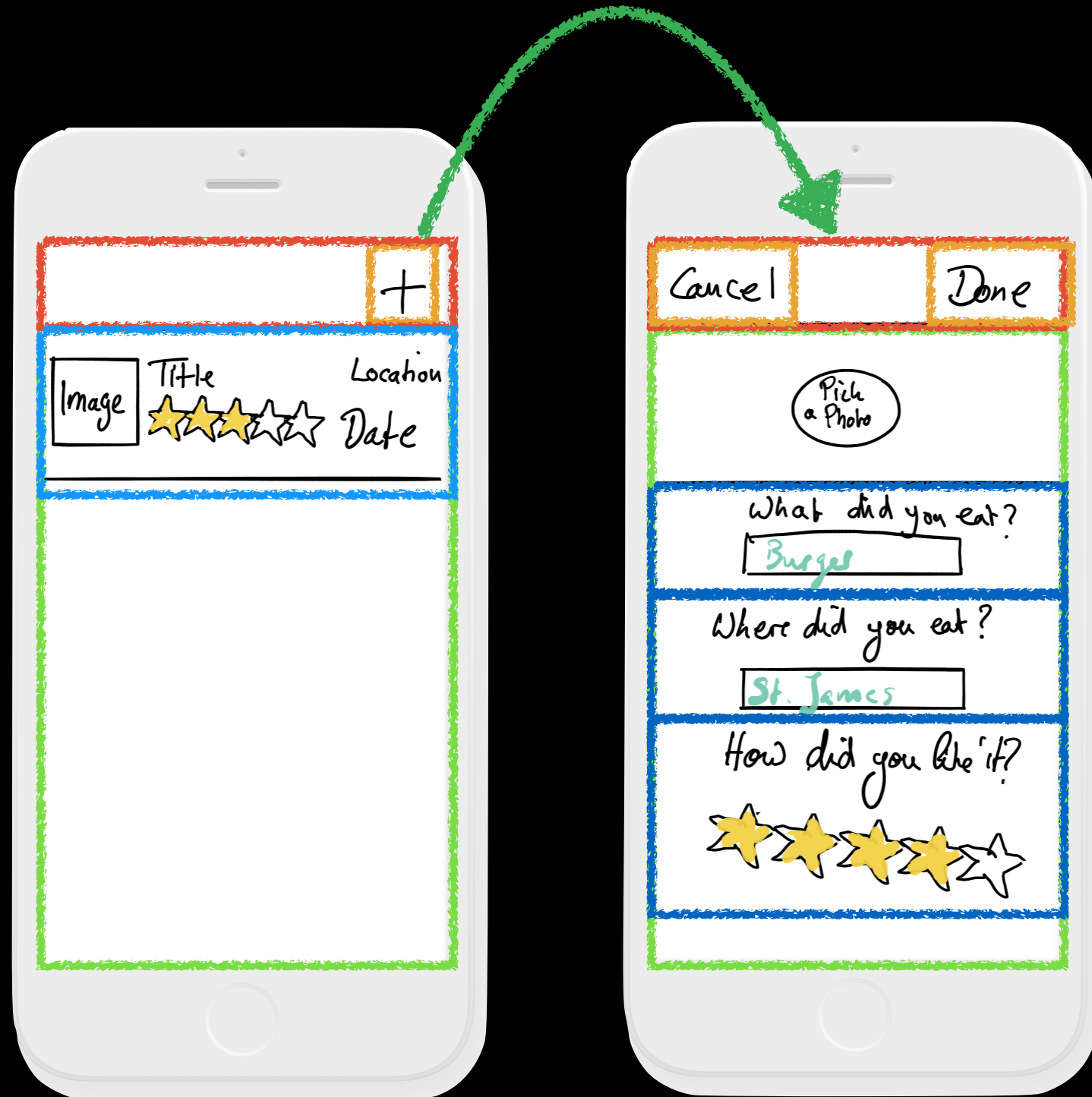
iTrackLunch

- Log a lunch
- Rate your lunch
- Take a picture
- See your log

*Live Session*

# Our iTrackLunch wireframe

NavigationBar  
BarButtonItem  
TableView  
TableViewCell  
(prototype)



NavigationBar  
BarButtonItem  
TableView  
TableViewCell  
(static)

Conclusion



Thank you!

**Want to join us in building the mobile wallet?**  
We have interesting tasks for working students and interns

**Contact me**  
Mark Himmelsbach  
[mark@stocard.de](mailto:mark@stocard.de)