RxSwift Classroom

FrenchKit 2017

Agenda

- Setup
- Taming `flatMap()`
- Learning to `share()`
- Introducing `RxFeedback`

Prepare for the class

- Clone `https://github.com/FrenchKit/RxSwiftClassroom`
- Open `Playground/Playground.xcworkspace`
- Build `RxSwift-macOS` scheme

Taming flatMap

Taming flatMap

Use `flatMap` whenever `maping` to a single value is not enough

Most crucial and useful operator to know inside out

1. Regular flatMap

Turn input into a network request

2. Errors

Beware errors emitted by inner sequences

3. Errors, the right way

Catching errors *inside* `flatMap` prevents breaking the overall sequence

4. Using flatMapLatest

When you only want to see the freshest results

Learning to share

Expensive observables

- Computation (i.e. preparing thuumbnails)
- Network requests
- Side effects

Forms of share

- `share()`
- `shareReplay(_:)`
- `shareReplayLatestWhileConnected()`
- `share(replay:scope:)`

Standard `share()`

- Subscribes to inner observable with first observer
- Unsubscribes when no more observers
- ⚠️ Side effect: zero observers = next observer restarts inner subscription

`shareReplay`

- Replays the last N emitted elements
- Event if # subscribers fell to zero
- Experiment with the playground!

`shareReplayLatestWhileConnected`

- Replays the last emitted element
- Clears buffer when no more subscribers

`share(replay:scope:)`

- Most flexible variant
- Control whether buffering 'sticks' when subscribers drop to zero

Introducing RxFeedback