# RxJava Kata

City Search

#### **Acceptance Criteria**

You must build a system that can be used to search for cities, and select cities from the results.

The system must be reactive and manage state accordingly.

# Requirements

- Start with an idle state
- Show a loading state
- Show the results from the api
- Show user selections with results
- React to problems with an error state

## Set Up (Java 8)

**RxJava 2** 

io.reactivex.rxjava2:rxjava:2.0.6

RxJava 1

io.reactivex:rxjava:1.2.7

#### **RxJava Difference**

- Observable -> Flowable
- Subject -> Processor
- Cannot emit null
- Back-pressure support

You may **not** modify Interactor

No conditionals (if/else/switch)

No iterations (for/do/while)

Wrap all primitives and Strings

First class collections

No abbreviations

Simple naming

Keep all entities small (50 lines)

Static inner classes permitted

Lambdas and method refs permitted

# Tips

- Manage state as a value
- Use stream pipelines
- Use event based behaviour

# Debouncing

**Additional Requirements** 

— Debounce user input every 500 ms