



# Mental model for a front-end app

Amarjeet

---

Mar 2, 2019

# Agenda

## Goal (today's session)

- Build a foundation to build upon - understand **View-Interaction-State** relationship
- Get your front-end app off the ground
- Make something beautiful that you can use and show-off

## Essentials not covered today

- Routes (Multi-page apps)
- HTTP
- Auth/ Sessions
- Other essentials

## Non-goal

- Self-hosted vs JVM
- Using JavaScript libraries
- Build-tools comparison
- And, many similar accessories

You will know  
when you need to know!

# View

Different type of things displayed  
(Text, Images, Link, etc.)

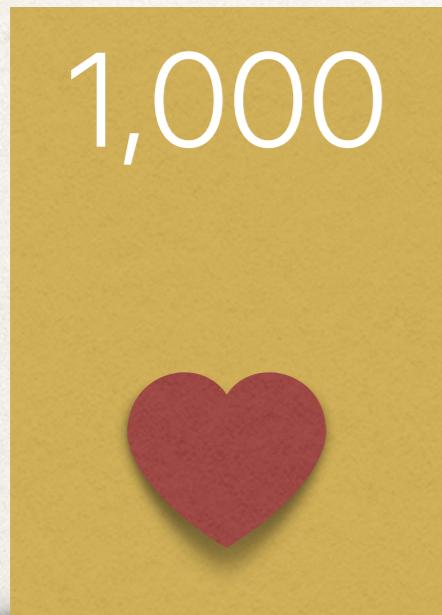
Layout



Aesthetics  
(beauty - colour, shadow, etc.)

User inputs  
(something will happen when user act on some part of the view)

# A Simple View



- Q1. Where is the data coming from?
- Q2. How is the number getting updated?
- Q3. What happens when users click on the heart symbol?
- Q4. How can I draw and arrange this view like this?

# Logic Flow

1. Where is the data coming from?

Data Store

2. How is the number getting updated?

Communication between data-store to the view

3. What happens when users click on the heart symbol?

Some effects, as a consequence of user-actions

4. How can I draw and arrange this view like this?

Ways to define a view (DOM/ HTML)

1,000



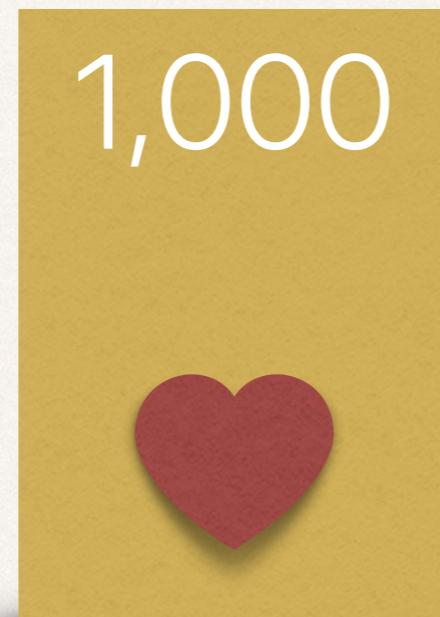
# Key Pieces

App State

Data Store

Reactive Queries

Communication between  
data-store to the view



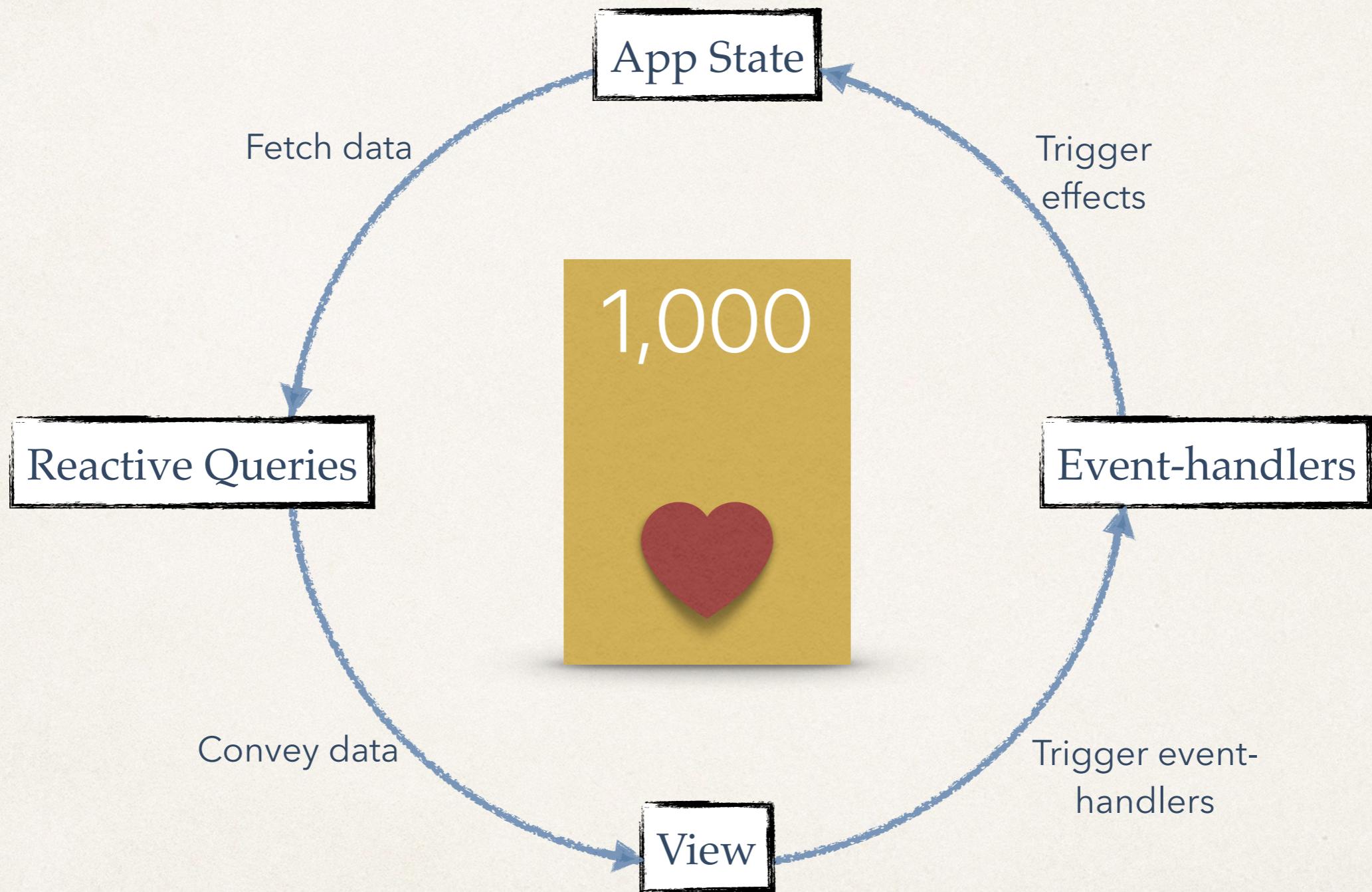
Event-handlers

Some effects, as a  
consequence of user-actions

View

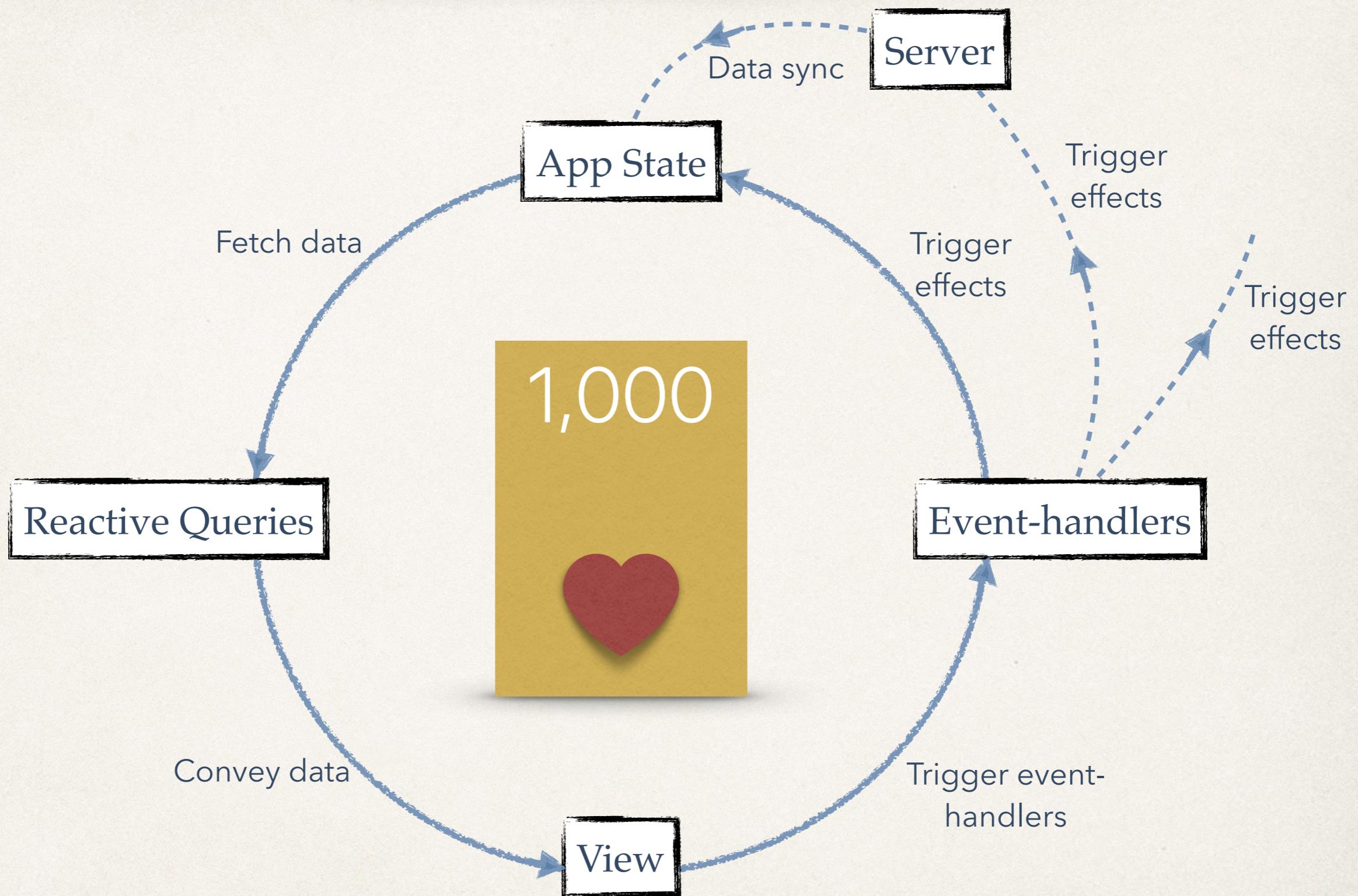
DOM/ HTML

# Mental Model



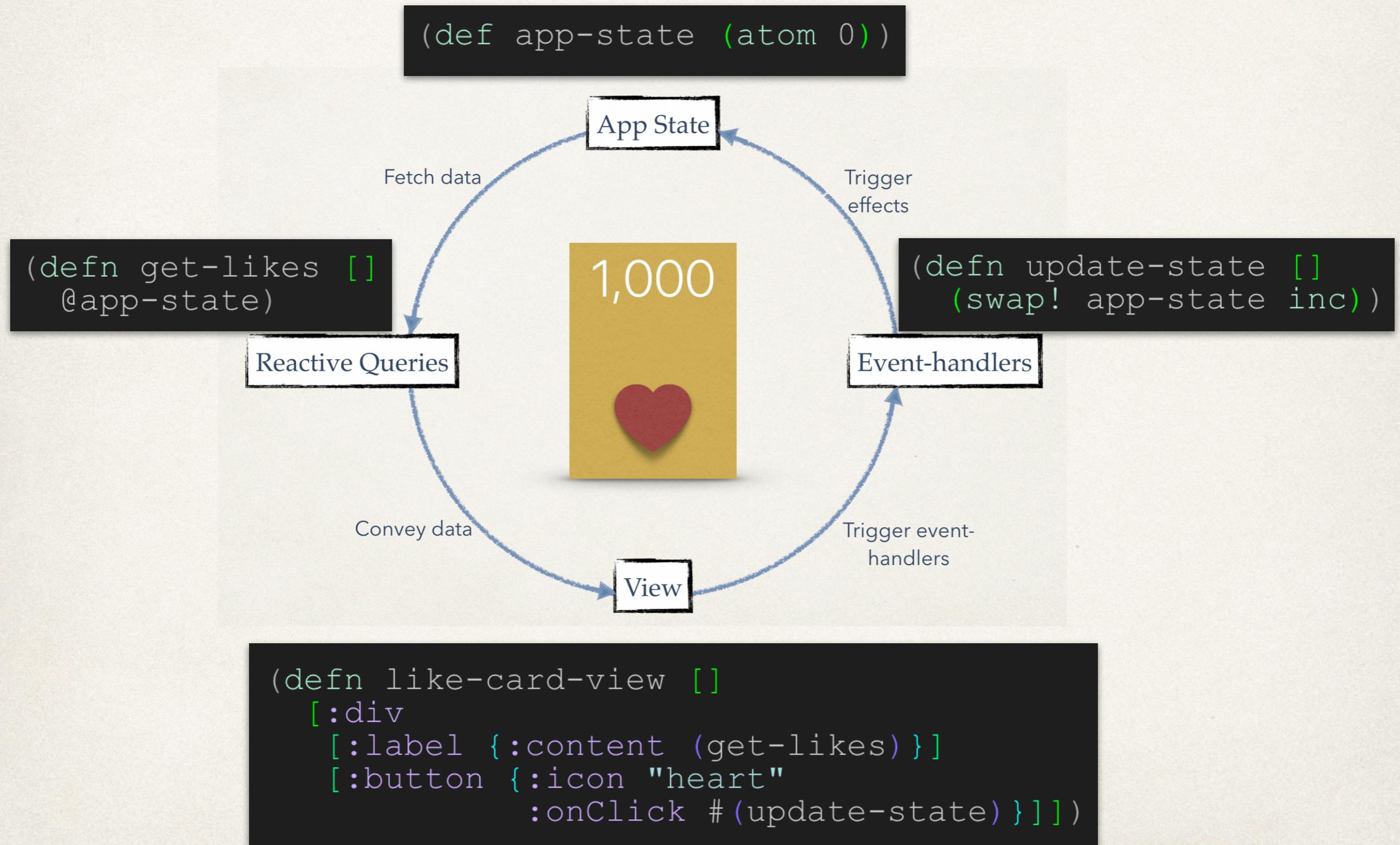
Uni-directional data flow

# Mental Model



Uni-directional data flow

# Mental Model to Code



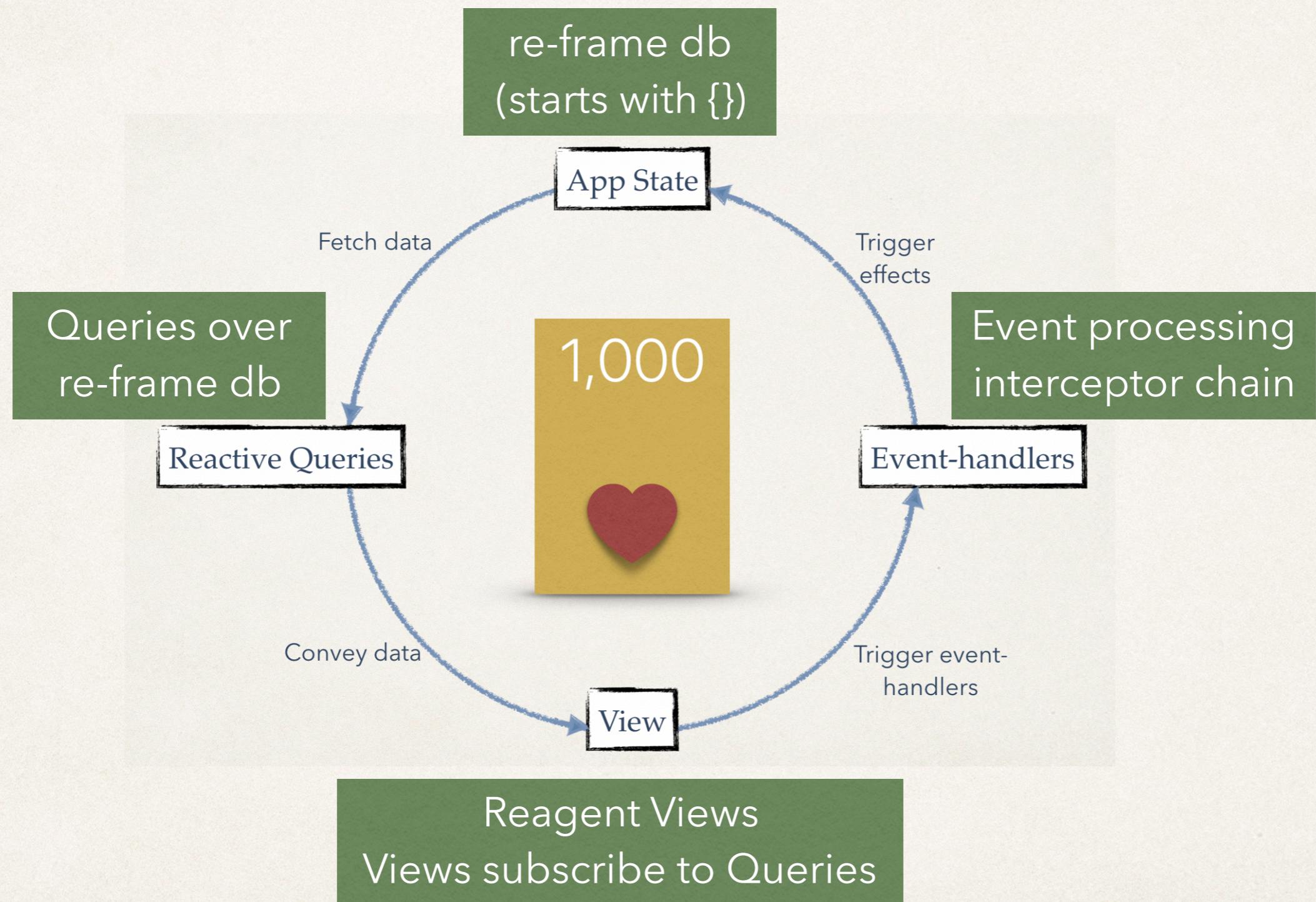
# Let's see it working

What we need:

- Editor (whatever you are using for Clojure)
- Reagent (cljs library) - for app template
- Soda-ash (cljs library) - for readily available view components

Demo

# Re-frame



# Thank you!



@amarjeet  
[clojurians.slack.com](https://clojurians.slack.com)



@amarjeet000