

Flux architecture

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Agenda

The status quo

The Flux way

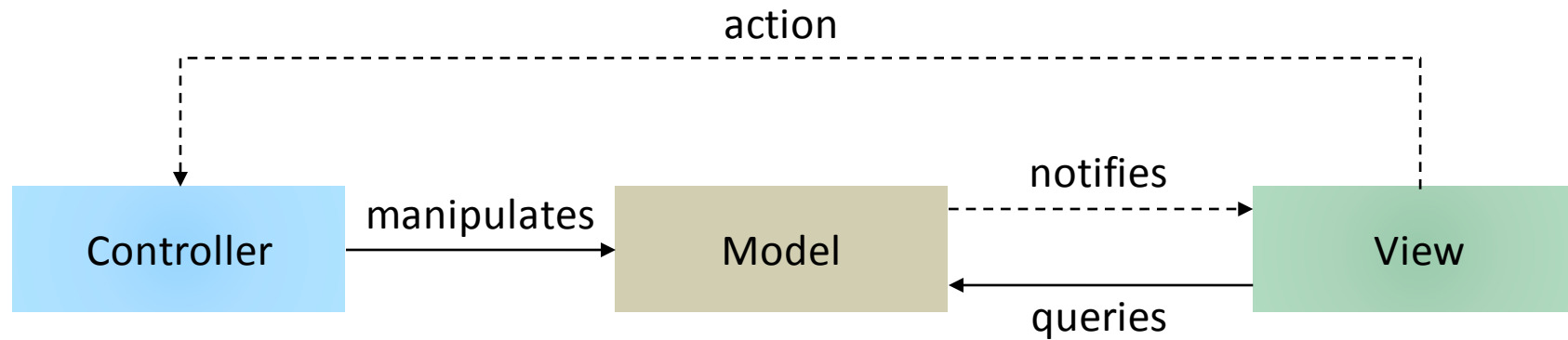
What is Flux

Key elements

DEMO

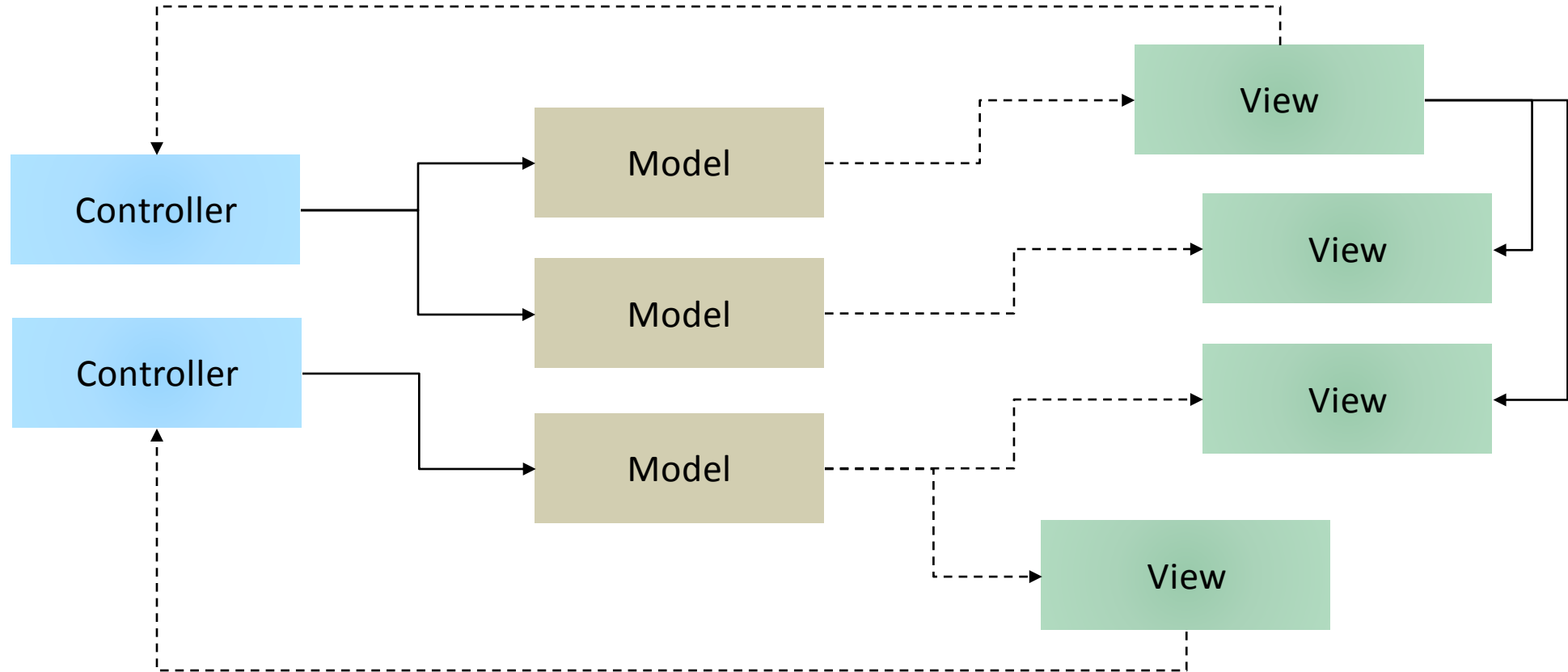
The status quo

Simple MVC application



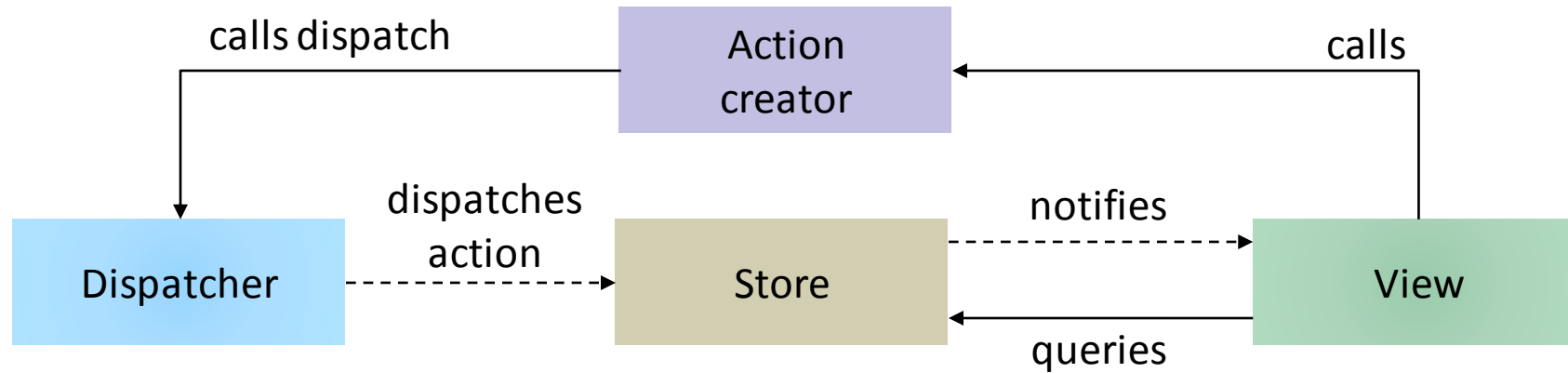
The status quo

Advanced MVC application



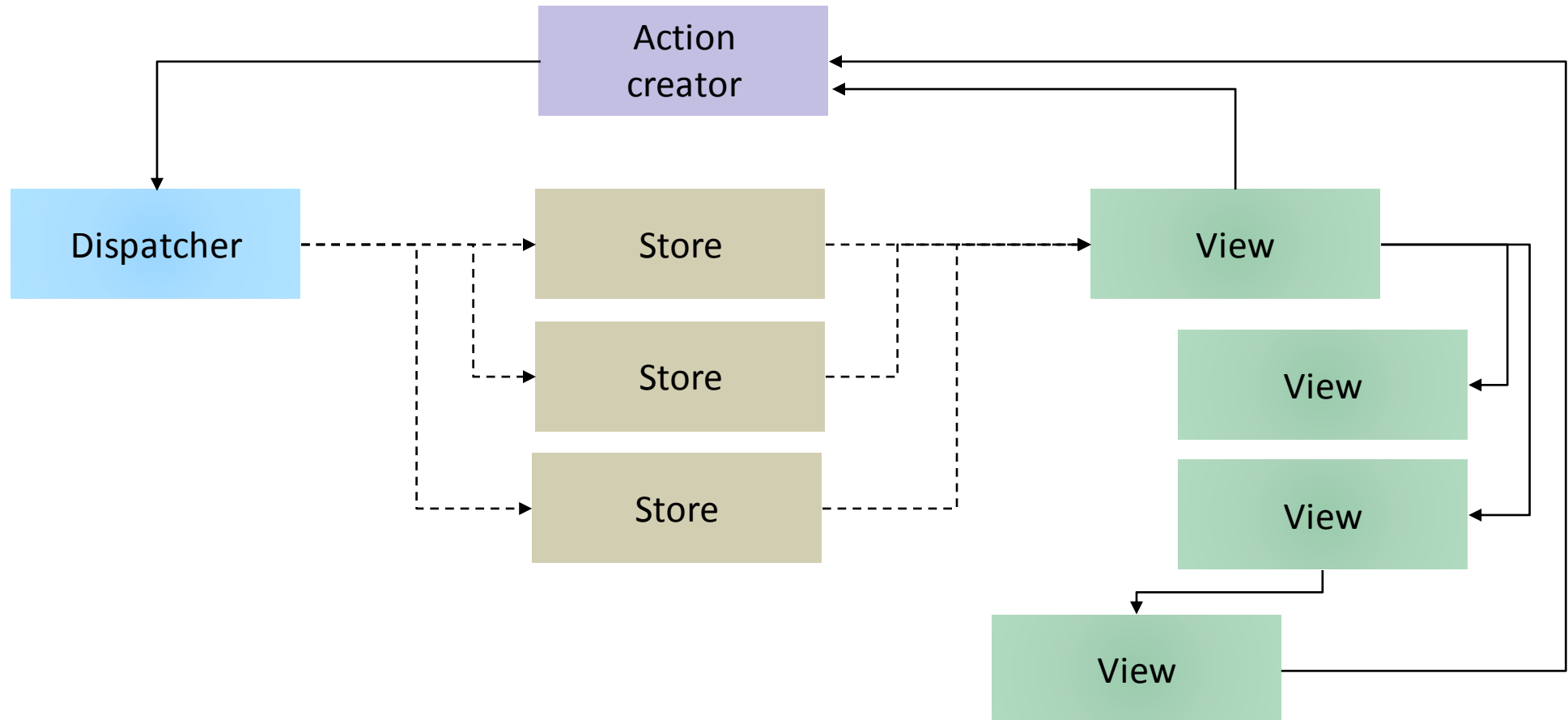
The Flux way

Simple Flux application



The Flux way

Advanced Flux application



What is Flux

flux  (flŭks)

n.

1.

- a. A flow or flowing of a liquid.
- b. The flowing in of the tide.
- c. A continuing movement, especially in large numbers of things

According to The Free Dictionary

<http://www.thefreedictionary.com/flux>

What is Flux

The way of building JavaScript applications

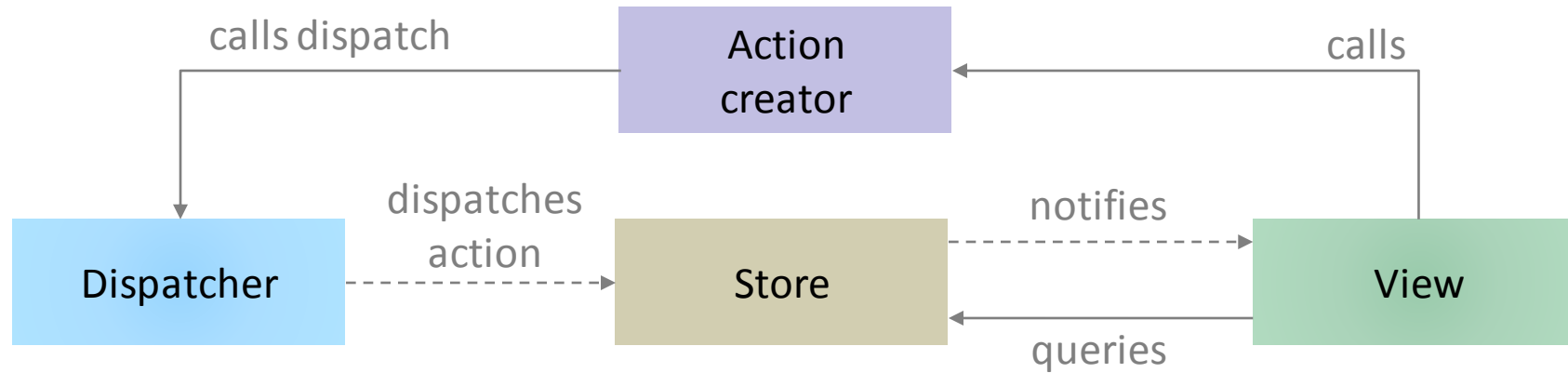
Promoted by Facebook

Design pattern rather than framework

Empowers unidirectional flow

Objects are highly decoupled (principle of least knowledge)

Key elements



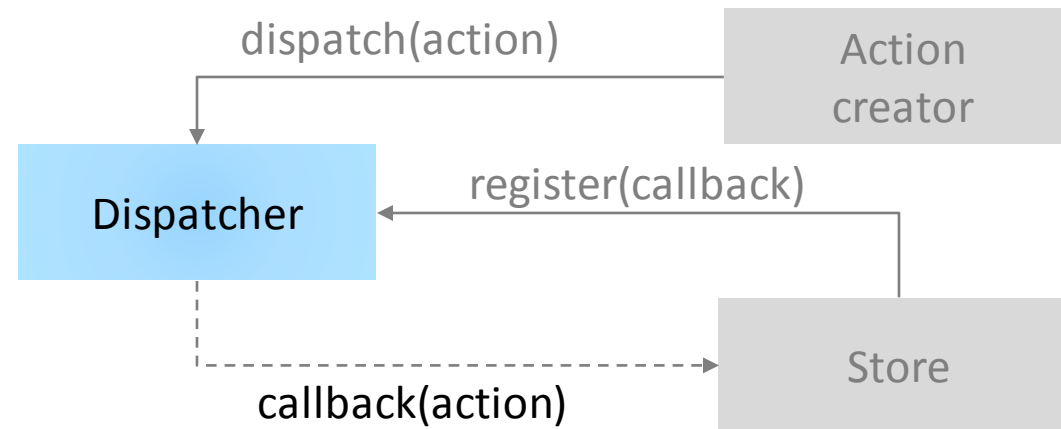
Dispatcher

A central hub that manages all data flow

A registry of callbacks

- Stores register themselves by providing a callback

When a new action arrives, all callbacks are invoked



Stores

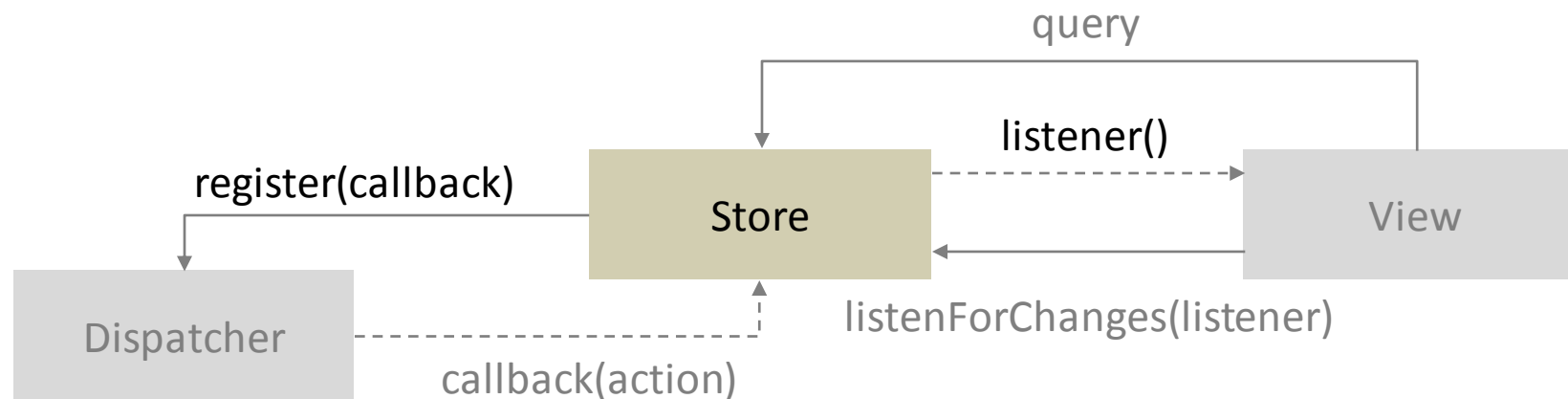
Contain application state and logic

- Similar to repositories

Manage a whole domain, rather than a single group of objects

Register themselves to the dispatcher with a callback

- The callback receives one argument – the action



Actions and action creators

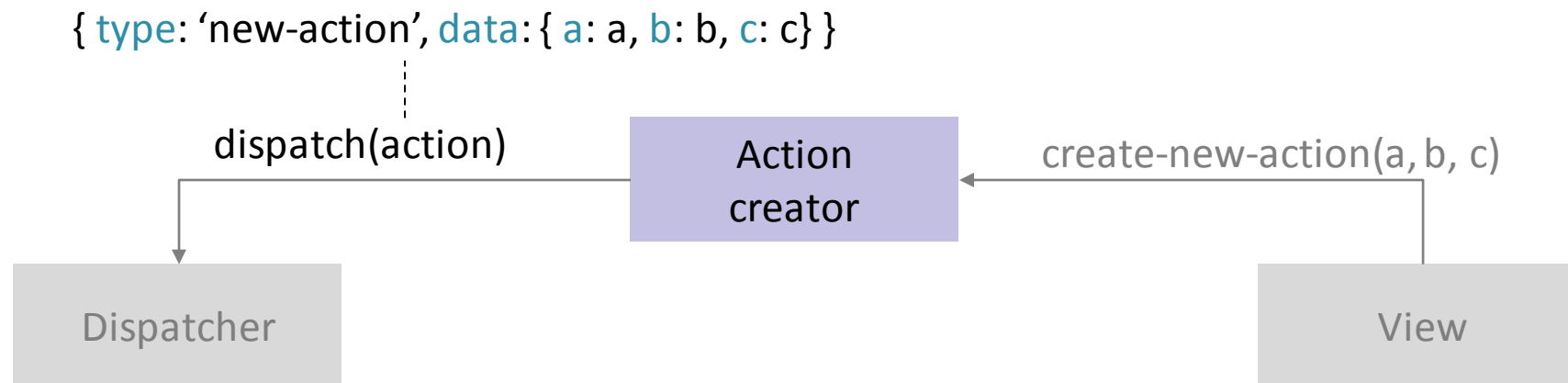
Actions define an activity to be performed

Typically have type and payload

Stores use the action type to determine further processing

Action creators are helper methods to create actions

- They call also the dispatcher with the newly created action



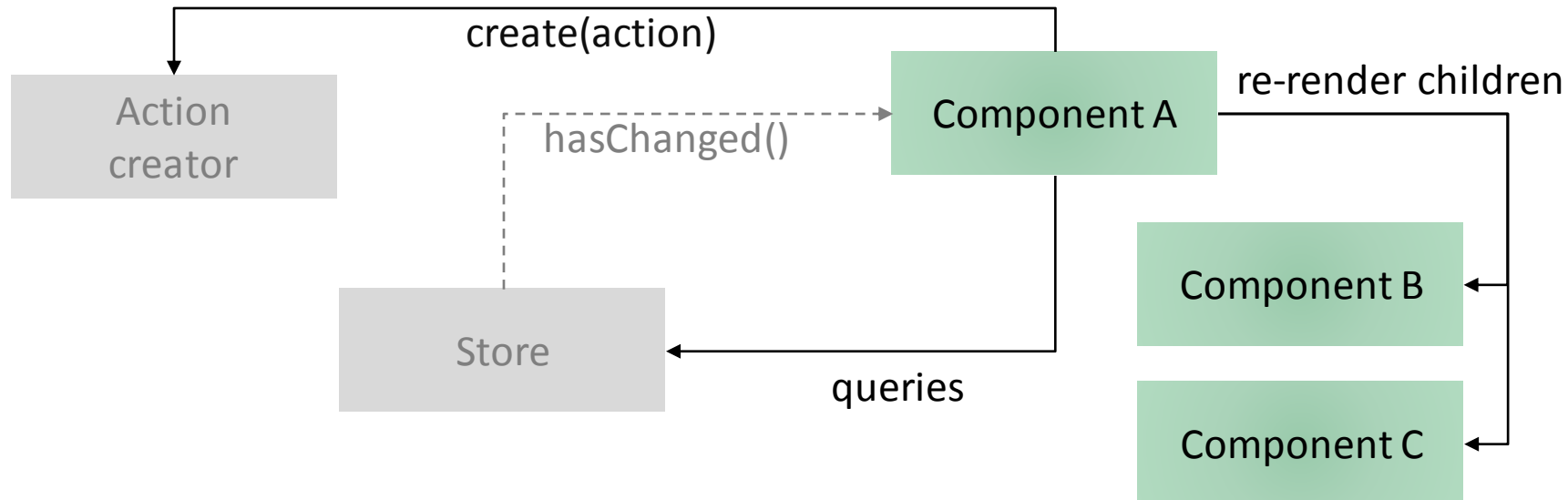
Views

React components

Subscribe to stores and listen for changes

Ensure one way of data flow

- Only one view in a hierarchy listens for changes in the store
- Updates all other views underneath in the hierarchy



DEMO

<https://github.com/boyanin/Flux-Phone-Book>

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Implementations

Fluxxor (<http://fluxxor.com>)

marty.js (<http://martyjs.org>)

Reflux (<https://github.com/spoike/refluxjs>)

rx-flux (<https://github.com/fdecampredon/rx-flux>)

- Observable elements using RxJS

Omniscient (<http://omniscientjs.github.io>)

- Flavours immutability using Immutable.js

Is Flux only for React?

No

References

<http://facebook.github.io/flux/>

<http://facebook.github.io/react/blog/2014/07/30/flux-actions-and-the-dispatcher.html>

<https://reactjsnews.com/the-state-of-flux/>

<http://victorsavkin.com/post/99998937651/building-angular-apps-using-flux-architecture>

Q&A



Thank you!

