Introduction to Redux

What is Redux ?

- **Redux** is an open-source JavaScript library for managing application state.
- commonly used with libraries such as React or Angular for building user interfaces.
- Similar to (and inspired by) Facebook's Flux architecture
- was created by Dan Abramov and Andrew Clark.

Do I need Redux?

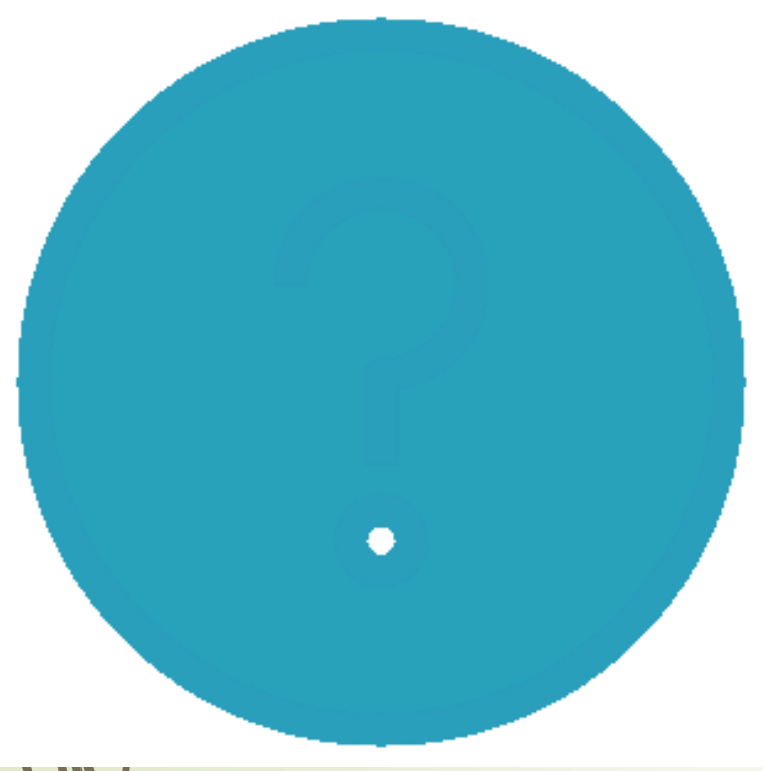
3 Principles

Flux vs Redux

Redux Flow

Do I need Redux?

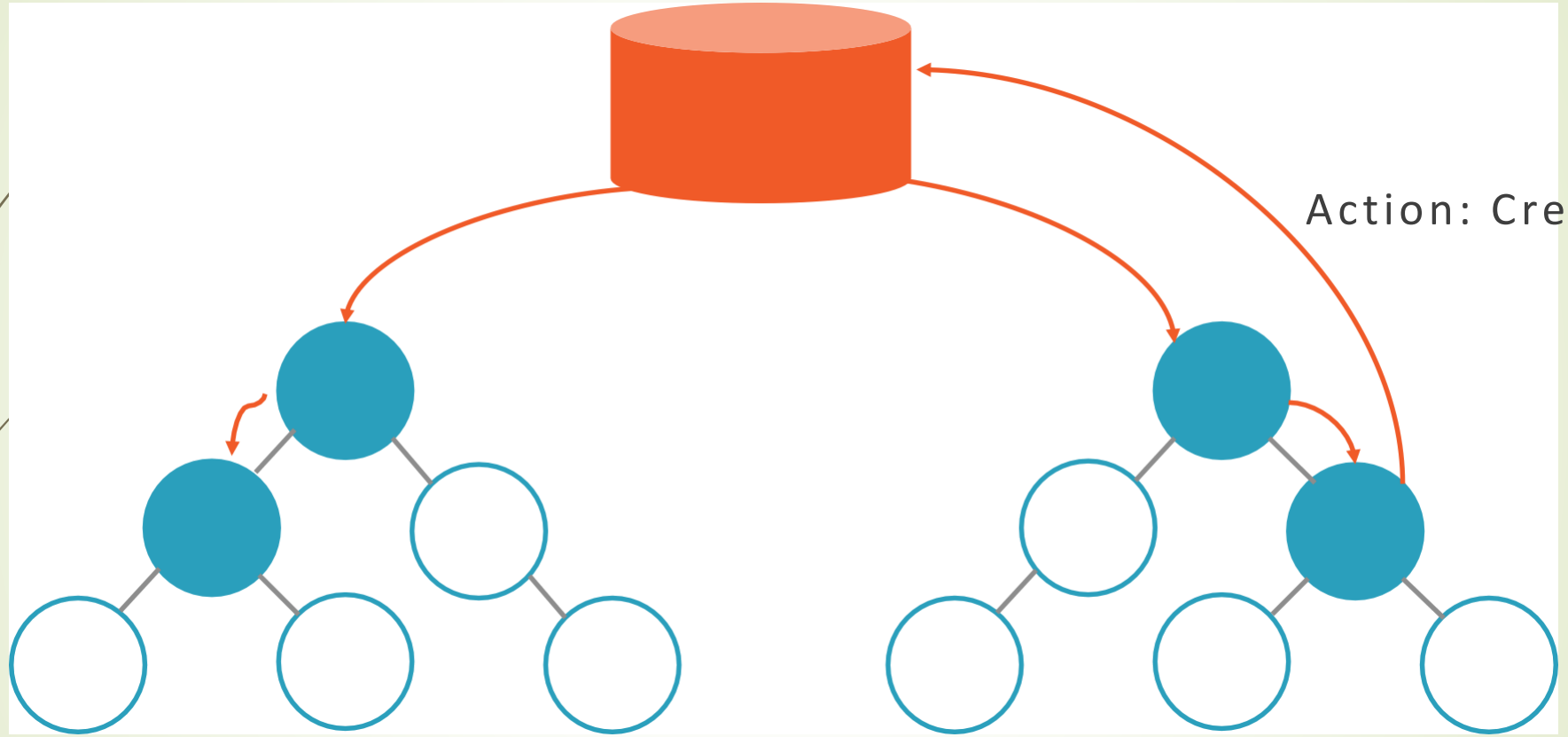
When Do INeed Redux?



- Complex data flows
- Inter-component communication

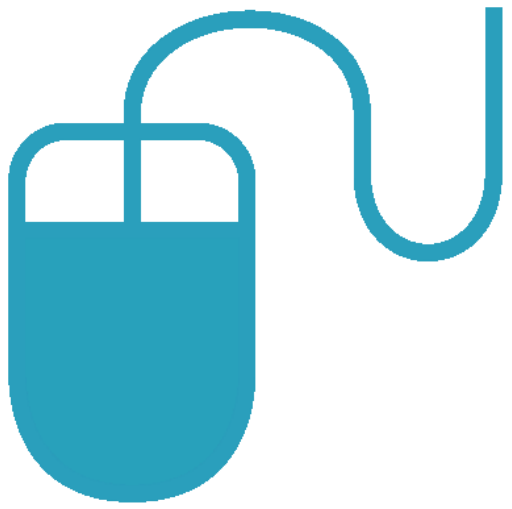
  Non-heirarchical data
- Many actions
- Same data used in multiple places

Store



Redux: 3 Principles

One immutable store



Actions trigger changes

Reducers update state

Flux vs Redux

Data down. Actions up.

Flux and Redux: Similarities

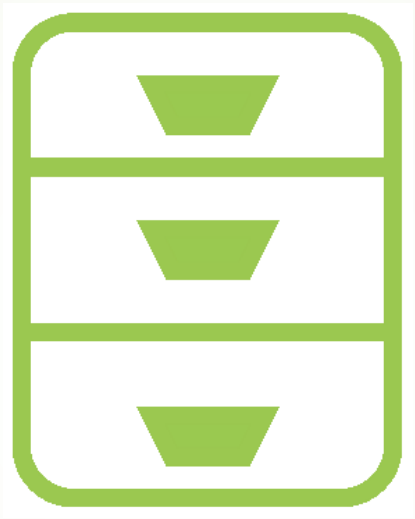
Unidirectional Flow

Actions

Stores

Redux: New Concepts

Reducers

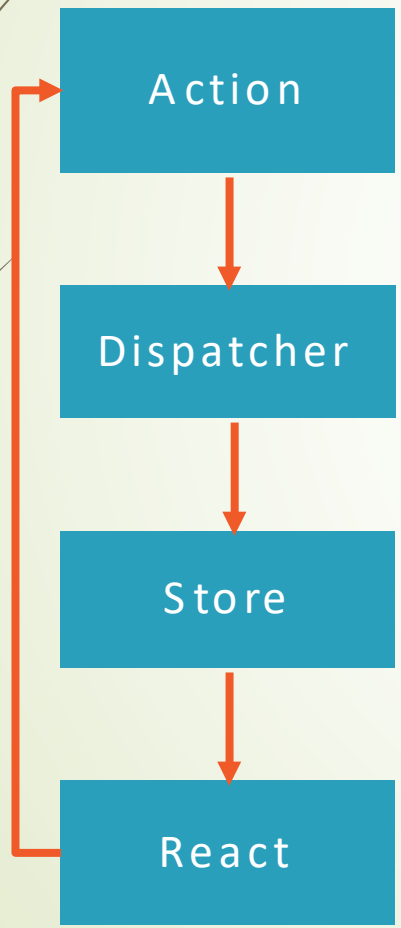


Containers

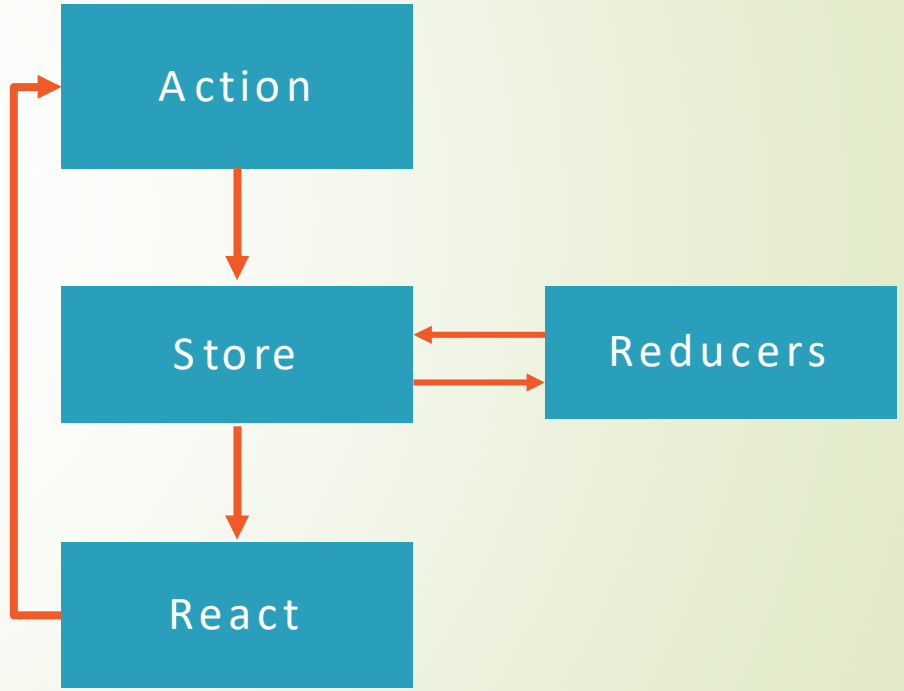
Immutability

Flux vs Redux

Flux



Redux



Flux

Stores contain state and changelogic

Redux

Store and change logicare separate

Flux

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Multiple stores

Redux

Store and change logicare separate

One store

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Multiple stores

Flat and disconnected stores

Redux

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One store

Single store with hierarchical reducers

Flux

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Multiple stores

Flat and disconnected stores

Singleton dispatcher

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Single store with hierarchical reducers

No dispatcher

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React components subscribe to stores

Redux

Store and change logic are separate

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Container components utilize connect

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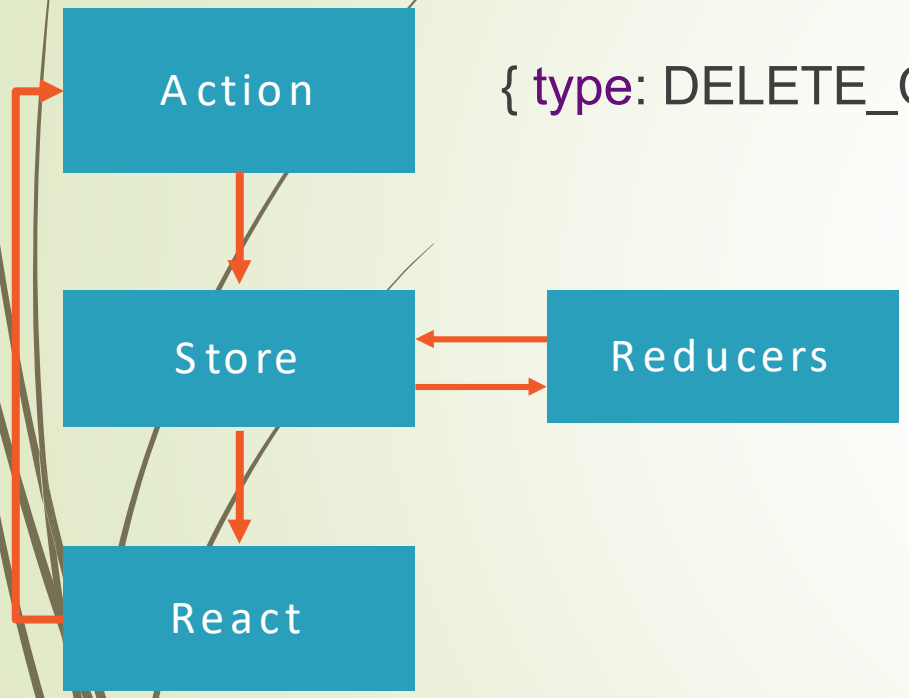
Redux Flow

Redux Flow



Notified via React-Redux

{ type: DELETE_COURSE, id: 5 }

```
function appReducer(state = defaultState, action) {
  switch(action.type) {
    case DELETE_COURSE:
    //return new state
  }
}
```