## Intro to Redux



**Cory House** 

@housecor reactjsconsulting.com



## Here's The Plan



Do I need Redux?

**3 Principles** 

Flux vs Redux

**Redux Flow** 



## Do I need Redux?



Vanilla JS j Query React React + Redux

Simple
No setup

Significant setup

## When Do I Need Redux?



**Complex data flows** 

Inter-component communication

Non-heirarchical data

Many actions

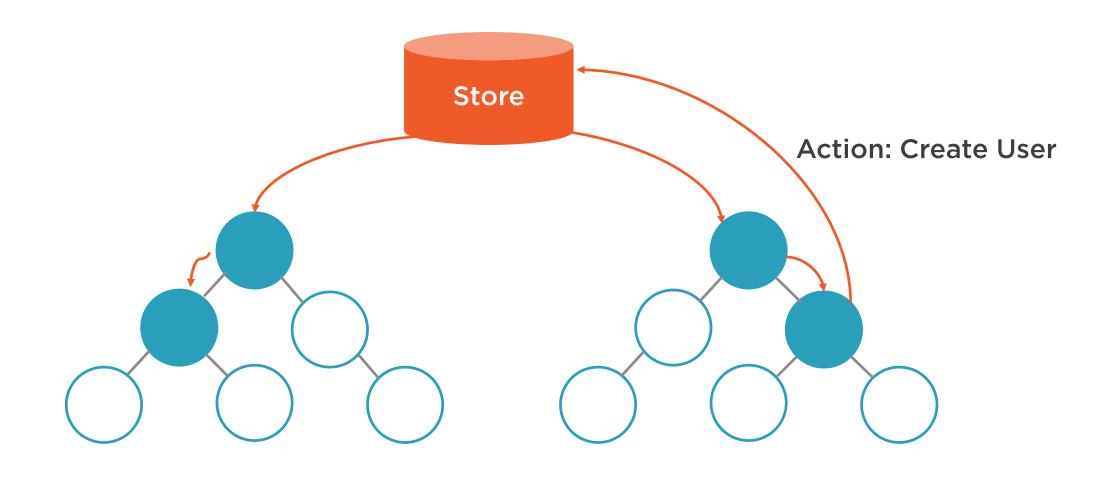
Same data used in multiple places



# "...If you aren't sure if you need it, you don't need it."

Pete Hunt on Flux and Redux

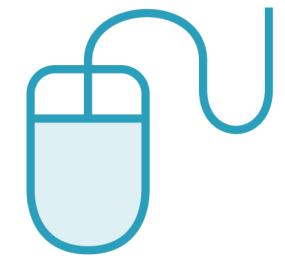




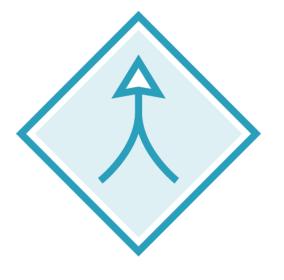
## Redux: 3 Principles



One immutable store



Actions trigger changes



Reducers update state



## Flux vs Redux



## Data down. Actions up.



## Flux and Redux: Similarities





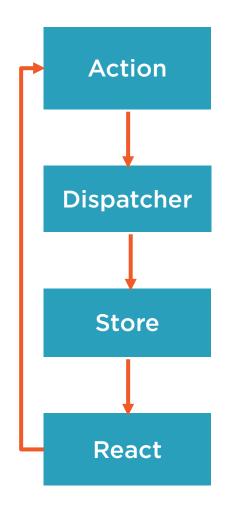
## Redux: New Concepts



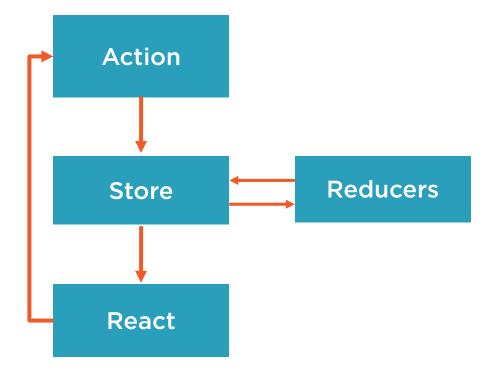


## Flux vs Redux

#### Flux



#### Redux





Flux | Redux

Stores contain state and change logic

Store and change logic are separate



Redux

Stores contain state and change logic

**Multiple stores** 

Store and change logic are separate

One store



Stores contain state and change logic

Multiple stores

Flat and disconnected stores

#### Redux

Store and change logic are separate

One store

Single store with hierarchical reducers



Redux

Stores contain state and change logic

Multiple stores

Flat and disconnected stores

Singleton dispatcher

Store and change logic are separate

One store

Single store with hierarchical reducers

No dispatcher



Stores contain state and change logic

Multiple stores

Flat and disconnected stores

Singleton dispatcher

React components subscribe to stores

#### Redux

Store and change logic are separate

One store

Single store with hierarchical reducers

No dispatcher

Container components utilize connect



Stores contain state and change logic

Multiple stores

Flat and disconnected stores

Singleton dispatcher

React components subscribe to stores

State is mutated

#### Redux

Store and change logic are separate

One store

Single store with hierarchical reducers

No dispatcher

Container components utilize connect

State is immutable



## Redux Flow



## Redux Flow

```
Action { type: RATE_COURSE, rating: 5 }

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

React Notified via React-Redux
```

## Summary



If you need Redux, you'll know it.

### **3 Principles**

- Immutable Store
- Actions trigger changes
- Reducers return updated state

Flux vs Redux

**Unidirectional Redux Flow** 

Next up: Actions, stores, and reducers

