Redux vs MobX

Wachara

Growth Session #8 - October 19-20 2017

What Do Redux and MobX Have in Common?

First, let’s look at what they both have in common:

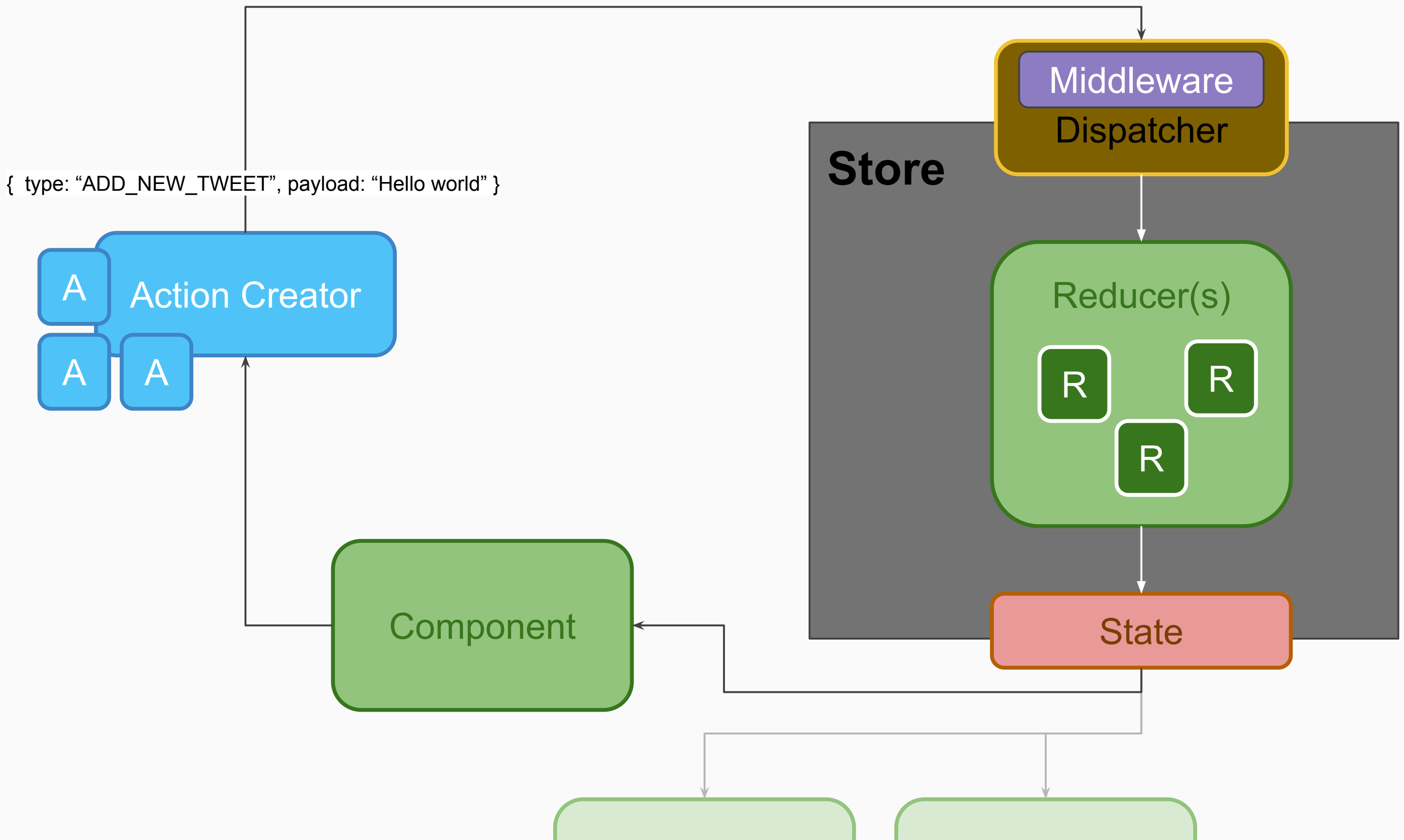
- Open-source libraries
- Provide client-side state management
- Not tied to specific framework
- Extensive support for React/React Native framework

Redux vs MobX

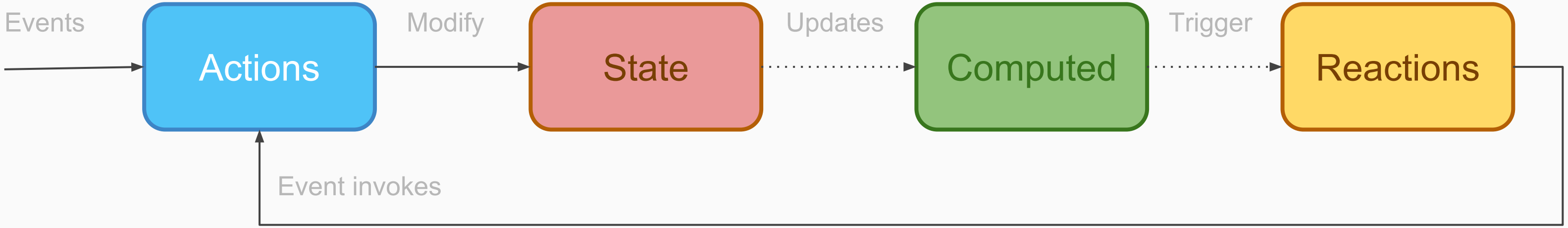
State management libraries

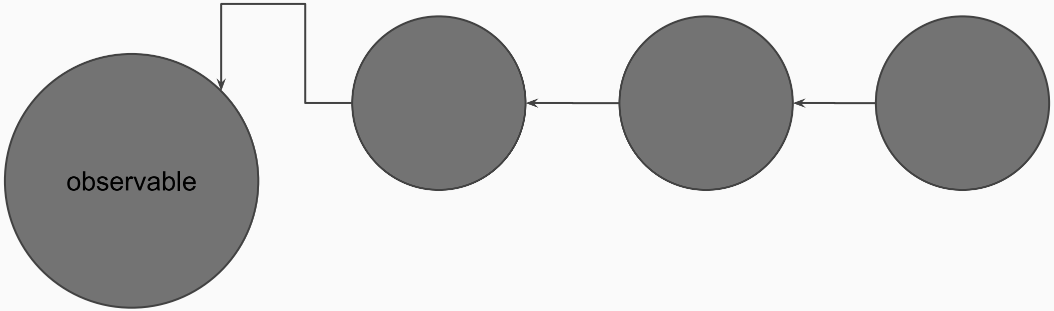
What’s the difference

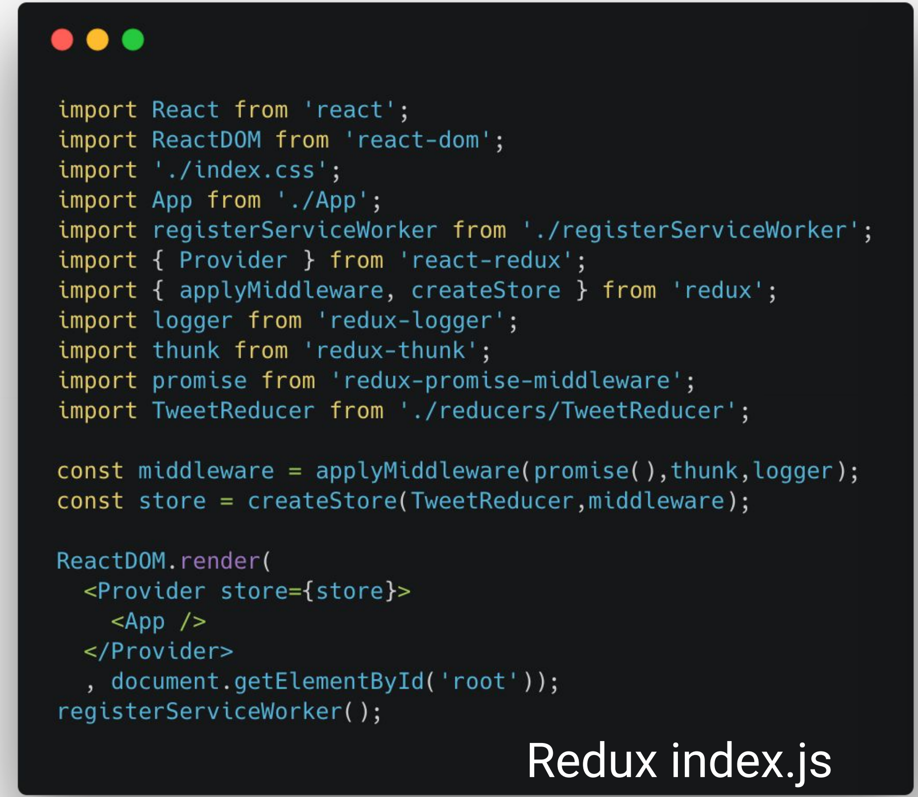
How Redux works



How MobX works

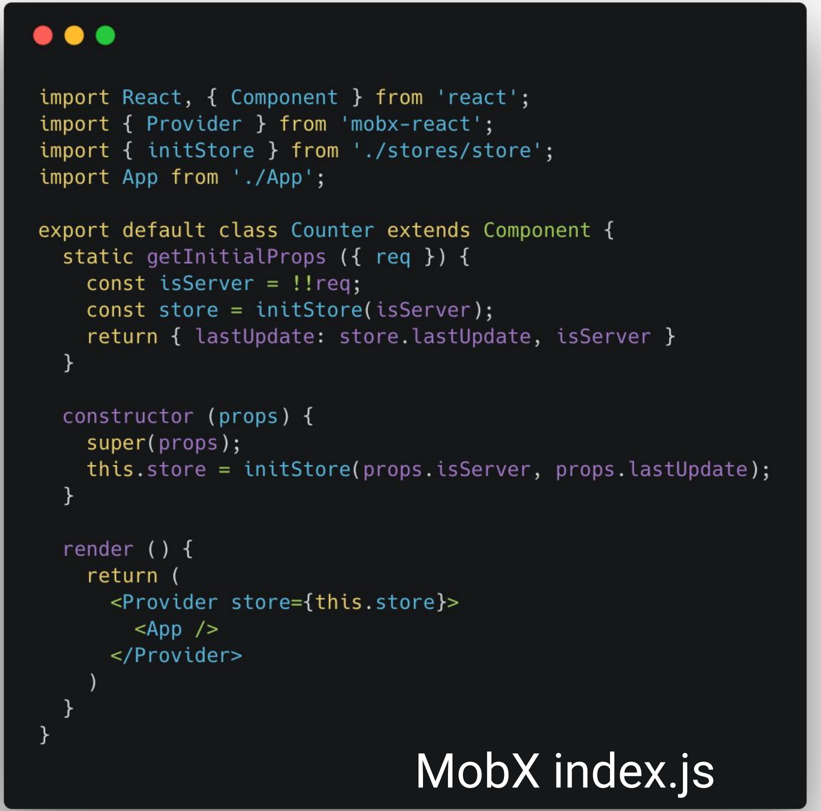






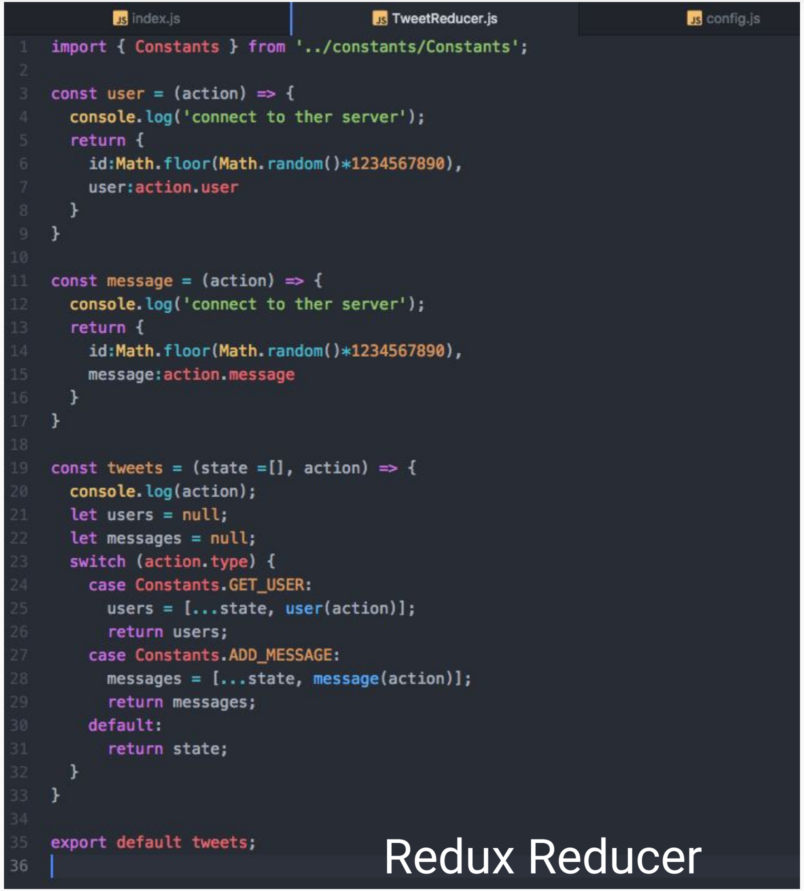
```javascript
import React from 'react';
import ReactDOM from 'react-dom';
import './index.css';
import App from './App';
import registerServiceWorker from './registerServiceWorker';
import { Provider } from 'react-redux';
import { applyMiddleware, createStore } from 'redux';
import logger from 'redux-logger';
import thunk from 'redux-thunk';
import promise from 'redux-promise-middleware';
import TweetReducer from './reducers/TweetReducer';

const middleware = applyMiddleware(promise(),thunk,logger);
const store = createStore(TweetReducer,middleware);

ReactDOM.render(
  <Provider store={store}>
    <App />
  </Provider>
  , document.getElementById('root'));
registerServiceWorker();
```

Redux index.js



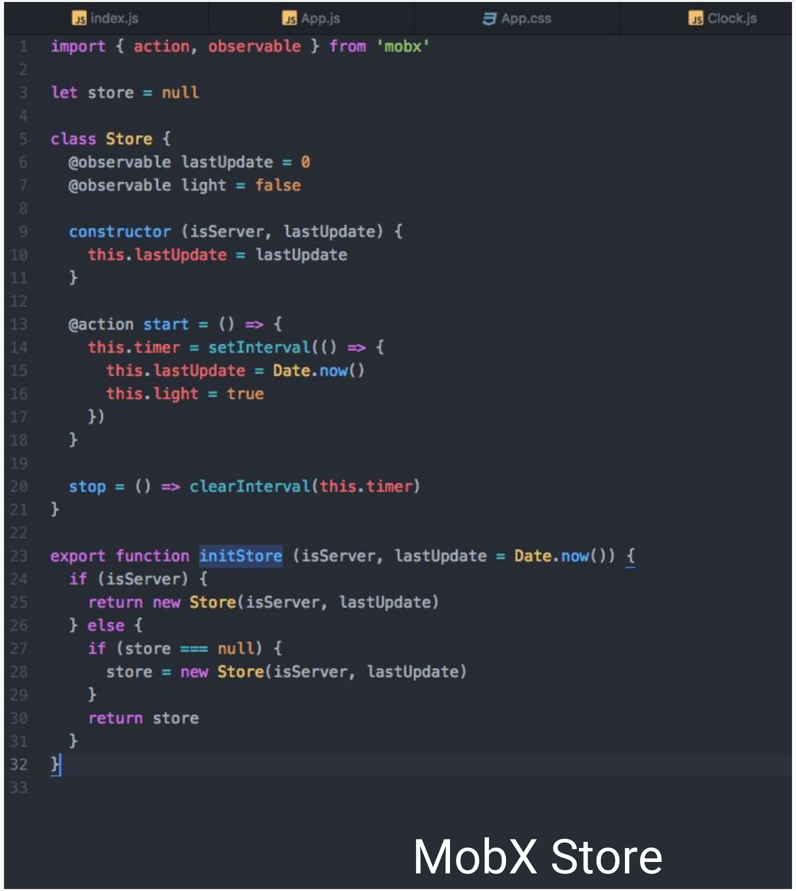
```javascript
import React, { Component } from 'react';
import { Provider } from 'mobx-react';
import { initStore } from './stores/store';
import App from './App';

export default class Counter extends Component {
  static getInitialProps ({ req }) {
    const isServer = !!req;
    const store = initStore(isServer);
    return { lastUpdate: store.lastUpdate, isServer }
  }

  constructor (props) {
    super(props);
    this.store = initStore(props.isServer, props.lastUpdate);
  }

  render () {
    return (
      <Provider store={this.store}>
        <App />
      </Provider>
    )
  }
}
```

MobX index.js



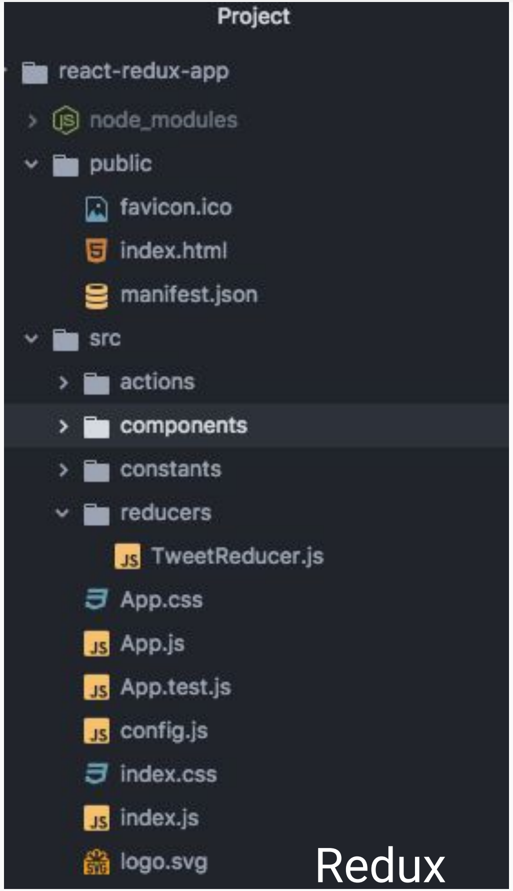
```javascript
import { Constants } from '../constants/Constants';

const user = (action) => {
  console.log('connect to ther server');
  return {
    id:Math.floor(Math.random()*1234567890),
    user:action.user
  }
}

const message = (action) => {
  console.log('connect to ther server');
  return {
    id:Math.floor(Math.random()*1234567890),
    message:action.message
  }
}

const tweets = (state =[], action) => {
  console.log(action);
  let users = null;
  let messages = null;
  switch (action.type) {
    case Constants.GET_USER:
      users = [...state, user(action)];
      return users;
    case Constants.ADD_MESSAGE:
      messages = [...state, message(action)];
      return messages;
    default:
      return state;
  }
}

export default tweets;
```

Redux Reducer



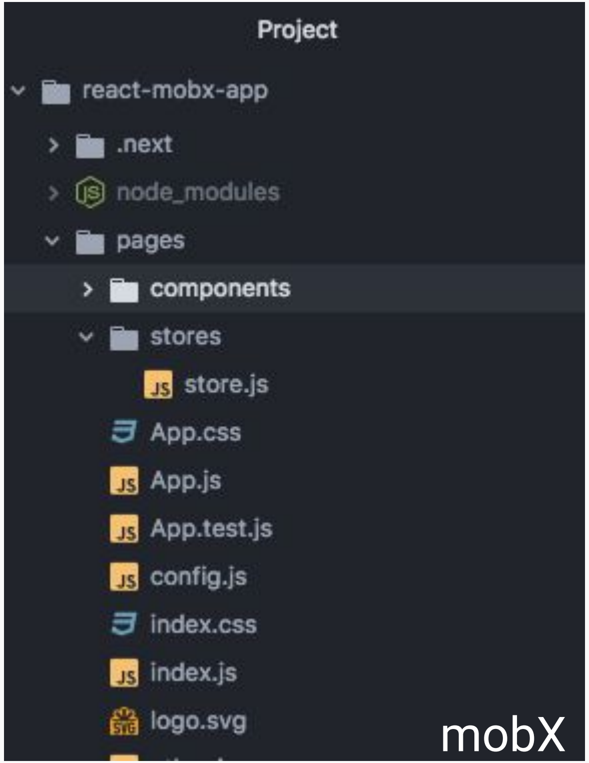
```javascript
import { action, observable } from 'mobx'

let store = null

class Store {
  @observable lastUpdate = 0
  @observable light = false

  constructor (isServer, lastUpdate) {
    this.lastUpdate = lastUpdate
  }

  @action start = () => {
    this.timer = setInterval(() => {
      this.lastUpdate = Date.now()
      this.light = true
    })
  }

  stop = () => clearInterval(this.timer)
}

export function initStore (isServer, lastUpdate = Date.now()) {
  if (isServer) {
    return new Store(isServer, lastUpdate)
  } else {
    if (store === null) {
      store = new Store(isServer, lastUpdate)
    }
    return store
  }
}
```

MobX Store



```
Project

react-redux-app
  > node_modules
  v public
      favicon.ico
      index.html
      manifest.json
  v src
    > actions
    > components
    > constants
    v reducers
        TweetReducer.js
      App.css
      App.js
      App.test.js
      config.js
      index.css
      index.js
      logo.svg
```

Redux



```
Project

v react-mobx-app
  > .next
  > node_modules
  v pages
    > components
    v stores
        store.js
      App.css
      App.js
      App.test.js
      config.js
      index.css
      index.js
      logo.svg
```

mobX

Achievements and progress

- See the difference code between Redux and MobX
- See how to setup Redux manually
- See how MobX code yields less code than Redux

Two identical applications

one by and one by]v[

https://github.com/nimbl3/mini-twitter-redux-vs-mobx.git

Thanks!

Contact Nimbl3

hello@nimbl3.com

399 Sukhumvit Road, Interchange 21
Klongtoey nua, Wattana
Bangkok 10110

20th Floor, Central Tower
28 Queen's Road
Central, Hong Kong

nimbl3.com