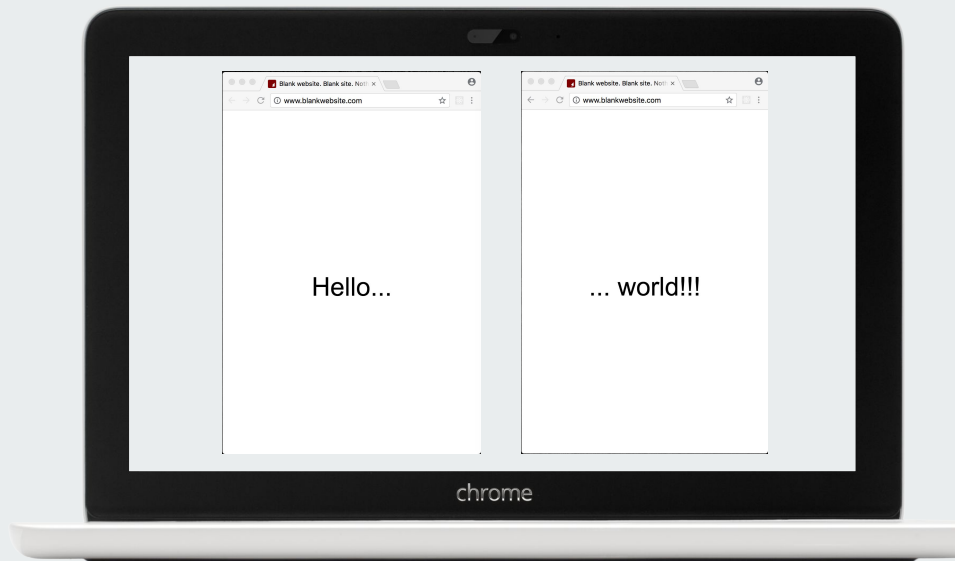




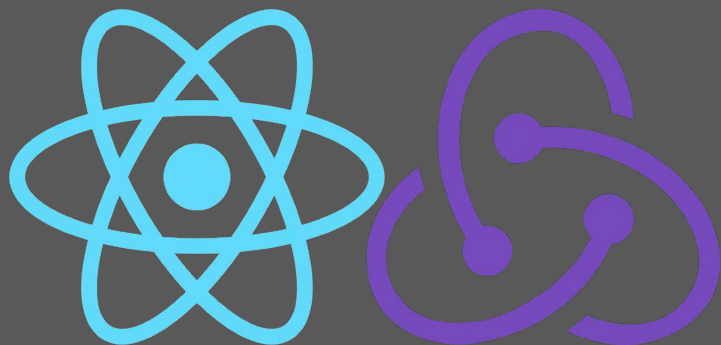
If these tabs could talk?

Presented by: Zachary Sierakowski

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Outline



Redux

- Relation to React

Redux Middleware

- What and why?
- Common examples

Tab Communication

- Web workers
- Example / Demo
- Alternatives



Redux



Relation to React

Used by React applications to manage state with a single store

- State is 'read-only'
- To update the state, emit objects (actions) describing the change
- State is transformed as a result of these actions through pure functions (reducers)

Redux Middleware



What is Redux Middleware?

It provides a third-party extension point between dispatching an action, and the moment it reaches the reducer.



Why use Redux Middleware?

Used for logging, crash reporting, async APIs, routing, and more...



Examples

creating middleware

Middleware to log every
action, and the result of
the state after the action.

```
const logger = store => next => action => {  
  console.log('dispatching', action);  
  let result = next(action);  
  console.log('next state', store.getState());  
  return result;  
}
```




Examples

creating middleware

Middleware set to send a user click metric anytime an action with type 'CLICK' is found.

```
const metricMiddleware = store => next => action => {  
  if(action.type.includes('CLICK')) {  
    client.sendMetric(action);  
  }  
  return next(action);  
}
```



Examples

applying
middleware

```
import { createStore, applyMiddleware } from 'redux';  
const store = createStore(reducers,  
  applyMiddleware(logger, metricMiddleware);  
);
```

Tab Communication



Web Workers

Web Workers is a simple means for web content to run scripts in background threads.

```
var myWorker = new Worker('worker.js');  
  
myWorker.postMessage("hello world");  
  
myWorker.onmessage = function(e) {  
  console.log('Message received from worker -- ', e.data);  
}
```

Shared Web Workers

See browser support [here](#).



Demo



Alternatives

...



What next?

→ You can find the demo and presentation [here](#).

Questions?



References

[redux](#)

[redux-logger](#)

[web workers](#)

[caniuse.com](#)