

Redux cheatsheet

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Creating a store

```
import { createStore } from 'redux'

// Reducer
function counter (state = { value: 0 }, action) {
  switch (action.type) {
    case 'INCREMENT':
      return { value: state.value + 1 }
    case 'DECREMENT':
      return { value: state.value - 1 }
    default:
      return state
  }
}

let store = createStore(counter)

// Optional - you can pass `initialState` as a second arg
let store = createStore(counter, { value: 0 })
```

A store is made from a reducer function, which takes the current `state`, and returns a new `state` depending on the `action` it was given.

Using a store

```
let store = createStore(counter)

// Dispatches an action; this changes the state
store.dispatch({ type: 'INCREMENT' })
store.dispatch({ type: 'DECREMENT' })

// Gets the current state
store.getState()
```

```
// Listens for changes
store.subscribe(() => { ... })
```

Dispatch actions to change the store's state.

React Redux

Provider

```
import { Provider } from 'react-redux'
```

```
React.render(
  <Provider store={store}>
    <App />
  </Provider>, mountNode)
```

The `<Provider>` component makes the store available in your React components. You need this so you can use `connect()`.

Mapping state

```
import { connect } from 'react-redux'
```

```
// A functional React component
function App ({ message, onMessageClick }) {
  return (
    <div onClick={() => onMessageClick('hello')}>
      {message}
    </div>
  )
}
```

```
// Maps `state` to `props`:
// These will be added as props to the component.
function mapState (state) {
  return { message: state.message }
}
```

```
// Maps `dispatch` to `props`:
function mapDispatch (dispatch) {
  return {
    onMessageClick (message) {
      dispatch({ type: 'click', message })
    }
  }
}
```

```
}

// Connect them:
export default connect(mapStateToProps, mapDispatchToProps) (App)
```

Shorthand

```
export default connect(
  (state) => ({
    message: state.message
  }),
  (dispatch) => ({
    onMessageClick: (message) => {
      dispatch({ type: 'click', message })
    }
  })
) (App)
```

Same as above, but shorter.

Combining reducers

```
const reducer = combineReducers({
  counter, user, store
})
```

Combines multiple reducers into one reducer function. See: [combineReducers \(redux.js.org\)](https://redux.js.org)

Middleware

Signature

```
// noop middleware
const logger = store => dispatch => action { dispatch(action) }
```

```
const logger = store => {
  // This function runs on createStore().
  // It returns a decorator for dispatch().

  return dispatch => {
    // Runs on createStore(), too.
    // It returns a new dispatch() function
```

```
    return action => {  
      // Runs on every dispatch()  
    }  
  }  
}
```

Middlewares are simply decorators for `dispatch()` to allow you to take different kinds of actions, and to perform different tasks when receiving actions.

Applying middleware

```
const enhancer = applyMiddleware(logger, thunk, ...)
```

```
const store = createStore(reducer, {}, enhancer)
```