

Async in Redux



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Here's the Plan



Why a mock API?

Mock API setup

Redux middleware

Async libraries

Implement Thunks



Why a Mock API



- Start before the API exists**
- Independence**
- Backup plan**
- Ultra-fast**
- Test slowness**
- Aids testing**
- Point to the real API later**



Demo



Setup mock API



Redux Middleware



Redux Middleware



You can write custom logic that runs here.





Handling async API calls

Logging

Crash reporting

Routing



Custom Logger Middleware

```
// Logs all actions and states after they are dispatched.  
const logger = store => next => action => {  
  console.group(action.type)  
  console.info('dispatching', action)  
  let result = next(action)  
  console.log('next state', store.getState())  
  console.groupEnd()  
  return result  
}
```



Async in Redux



Redux Async Libraries

redux-thunk

Return functions from action creators

redux-promise

Use promises for async

redux-observable

Use RxJS observables

redux-saga

Use generators



Comparison

Thunks

VS

Sagas

Functions

Clunky to test

Easy to learn

Generators

Easy to test

Hard to learn



Thunk

```
export function deleteAuthor(authorId) {  
  return (dispatch, getState) => {  
    return AuthorApi.deleteAuthor(authorId)  
      .then(() => {  
        dispatch(deletedAuthor(authorId));  
      })  
      .catch(handleError);  
  };  
}
```



Thunk

```
// Logs all actions and states after they are dispatched.  
const logger = store => next => action => {  
  console.group(action.type)  
  console.info('dispatching', action)  
  let result = next(action)  
  console.log('next state', store.getState())  
  console.groupEnd()  
  return result  
}  
// Usage:  
logger(store).dispatch({ type: 'FOO' })
```





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Code

Issues 1

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redux-thunk / src / index.js

Find file

Copy path



gaearon Add withExtraArgument()

41aefcc on May 10, 2016

2 contributors



15 lines (11 sloc) | 352 Bytes

Raw

Blame

History



```
1 function createThunkMiddleware(extraArgument) {
2   return ({ dispatch, getState }) => next => action => {
3     if (typeof action === 'function') {
4       return action(dispatch, getState, extraArgument);
5     }
6
7     return next(action);
8   };
9 }
10
11 const thunk = createThunkMiddleware();
12 thunk.withExtraArgument = createThunkMiddleware;
13
14 export default thunk;
```

**Middleware isn't required to
support async in Redux.
But you probably want it.**



Thunk

```
export function deleteAuthor(dispatch, authorId) {
  return AuthorApi.deleteAuthor(authorId)
    .then(() => {
      dispatch(deletedAuthor(authorId));
    })
    .catch(handleError);
}
```



Why Use Async Middleware?

Consistency
Purity
Easier testing



Demo



Let's get thunky.



Wrap Up



Why a mock API?

Set up Mock API

- Express and json-server

Redux middleware

Async libraries

- Thunks, Redux-Promise, and Sagas

Naming async actions

- Consider SUCCESS and ERROR

First thunk, complete!

Next up: Async writes



Up Next:

Async Writes

