

# REDUX MIDDLEWARE

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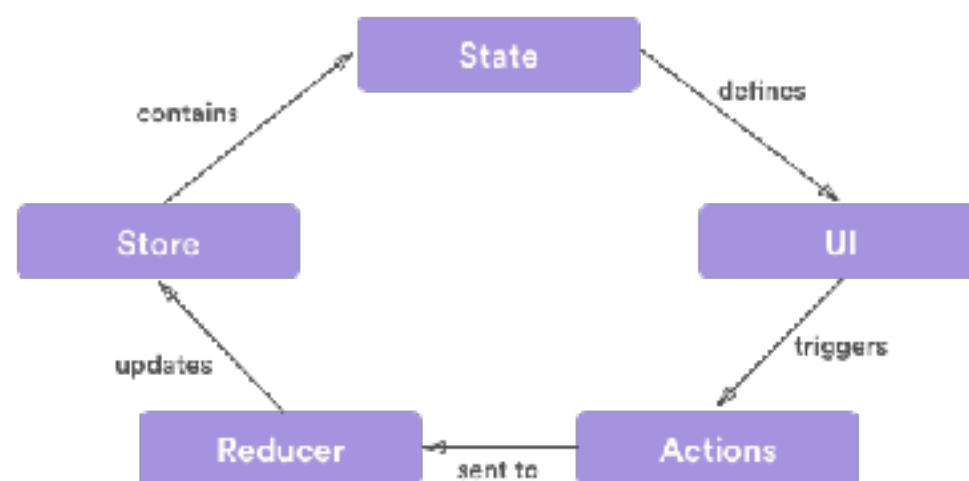
*What is a middleware?*

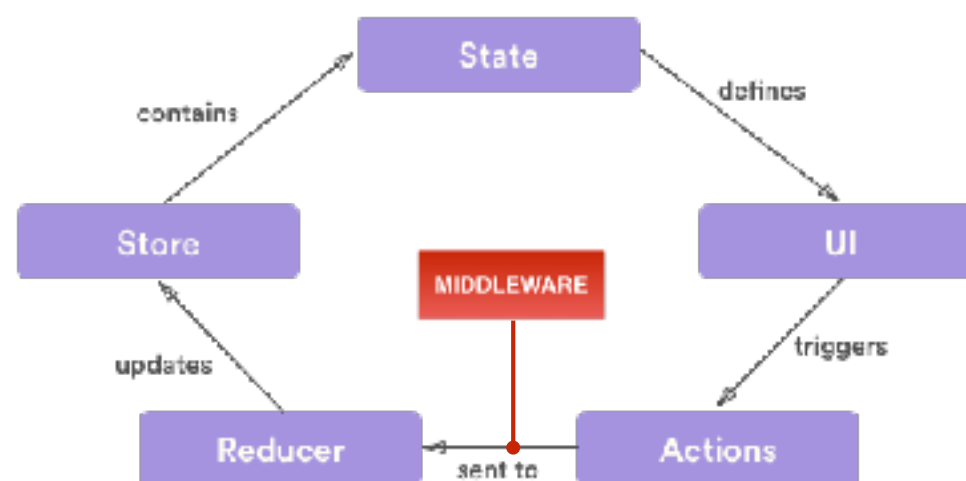
You've seen middleware in action in Express: code you can put between the framework receiving a request, and the framework generating a response. For example, Express middlewares may add logging, static file serving, compression, and more. Redux middleware solves different problems than Express middleware, but in a conceptually similar way

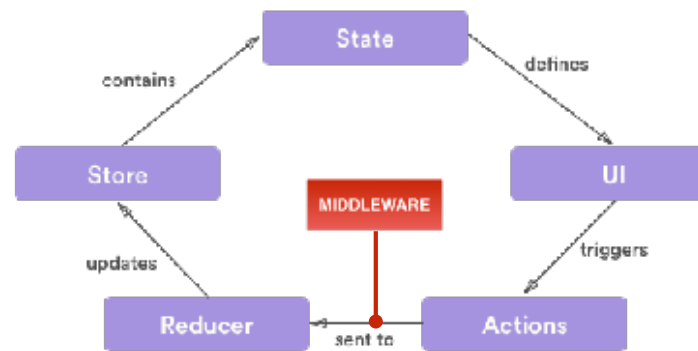
## WHAT IS A MIDDLEWARE

- Provides an extension point.
- Middleware code runs between the action being dispatched and reaching the reducer
- Useful for logging, crash reporting, talking to an asynchronous API, routing, and more.

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



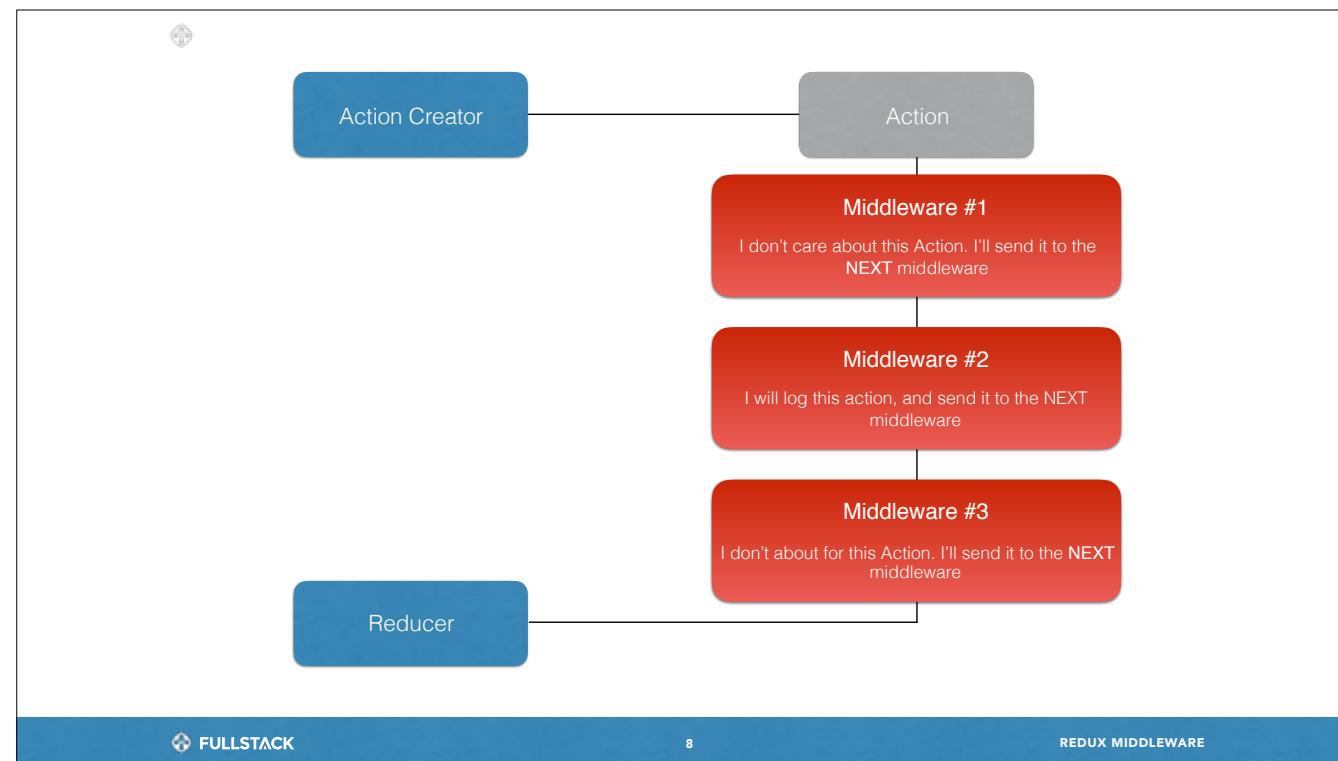




- The Middleware receives the action and can do whatever it wants with it, including modifying or even stopping it.

# MIDDLEWARE BENEFITS

- Middlewares are composable
- Middlewares run independently





# MIDDLEWARE FORMAT

- A middleware is a function that receives the store
- It **MUST** return a function with arg “next”, that itself:
- Must return a function with arg “action”

```
const someMiddleware = store => next => action => {  
  // your code here  
  return next(action);  
}
```



## APPLYING MIDDLEWARE

```
const store = createStore(reducer);
```



## APPLYING MIDDLEWARE

```
const store = createStore(  
  reducer,  
  applyMiddleware(someMiddleware)  
);
```