**Redux**

Create folder name: redux

Create one file in it: index.js

Run command: node index.js

To use npm, we must include package.json

Run command: npm init -y

Run command: npm install redux

import {createStore} from 'redux';

//store

const store = createStore(reducer);

function reducer(state={amount:1}, action){

if(action.type==='increment'){

return {amount: state.amount+1}

}

return state

}

//global state

console.log(store.getState());

store.dispatch({type:'increment'})

console.log(store.getState());

Run command: node index.js

Output:

{ amount: 1 }

{ amount: 2 }

Index.js

import {createStore} from ‘redux’;

//store

const store = createStore(reducer);

function reducer(state={amount:1}, action){

if(action.type===’increment’){

//mutable

state.amount=state.amount+1;

//immutable

// return {amount: state.amount+1}

}

return state

}

//global state

console.log(store.getState());

store.dispatch({type:’increment’})

console.log(store.getState());

index.js

import {createStore} from ‘redux’;

//store

const store = createStore(reducer);

function reducer(state={amount:1}, action){

if(action.type===’increment’){

//mutable

state.amount=state.amount+1;

//immutable

// return {amount: state.amount+1}

}

return state

}

//global state

store.subscribe(()=>{

console.log(store.getState());

})

setInterval(()=>{

store.dispatch({type:’increment’})

},3000)

Index.js

import {createStore} from 'redux';

//store

const store = createStore(reducer);

const history = [];

function reducer(state={amount:1}, action){

if(action.type==='increment'){

//mutable

//state.amount=state.amount+1;

//immutable

return {amount: state.amount+1}

}

return state

}

//global state

store.subscribe(()=>{

history.push(store.getState())

console.log(history);

})

setInterval(()=>{

store.dispatch({type:'increment'})

},3000)

Output:

[ { amount: 2 } ]

[ { amount: 3 }, { amount: 3 } ]

[ { amount: 4 }, { amount: 4 }, { amount: 4 } ]

Note: We can now differentiate between mutability and immutability.

**Middleware**

Run command: npm install redux-logger

import {createStore, applyMiddleware} from 'redux';

import logger from 'redux-logger';

//store

const store = createStore(reducer, applyMiddleware(logger.default));

const history = [];

function reducer(state={amount:1}, action){

if(action.type==='increment'){

//mutable

//state.amount=state.amount+1;

//immutable

return {amount: state.amount+1}

}

return state

}

//global state

// store.subscribe(()=>{

// history.push(store.getState())

// console.log(history);

// })

setInterval(()=>{

store.dispatch({type:'increment'})

},3000)

Output:

prev state { amount: 1 }

action { type: 'increment' }

next state { amount: 2 }

action increment @ 08:36:06.314

prev state { amount: 2 }