

INTRODUCTION TO REDUX

- From 'Namaste React' series.

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Let's Build Our Store

REDUX

- Redux works in the data layer of our application.

Let's see how we can handle the data effectively using Redux.

Actually, Redux is not mandatory in our application.

You don't need to use redux if you're using a small/mid-level application. But if you are using a large-scale application, where data is heavily used and a lot of read & write operations are happening, ~~in~~ then using 'REDUX' makes sense.

[Use 'REDUX' only if it is needed]

REDUX & REACT are different libraries.

There is another library like redux which is gaining popularity a lot: **ZUSTAND**

Advantages of using Redux

- (1) Redux is used for handling 'STATE' of our application.
- (2) When we use redux, it is easy to debug.
- (3) Redux maintain application state in a single JS object ("store"). This is the centralised approach.

Two libraries that redux team offers :-

- ① **React-Redux**] \rightarrow act like a bridge b/w react & redux
- ② **Redux Toolkit**] \rightarrow newer way of writing redux.

REDUX TOOLKIT (RTK)

\rightarrow created to help address 3 concerns about redux

- ① Configuring a redux store is too complicated.

Redux has a huge learning curve.

- ② We have to add a lot of packages to get Redux to do anything useful.

③ Redux requires too much boilerplate code.

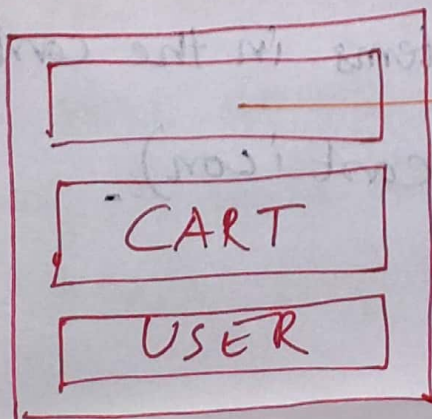
Let us build 'CART' FLOW

- If we click "Add" btn on menu item, it should get added to cart.

Redux store

- ↳ is a big javascript object and kept in a global central place.
- ↳ We keep most of the data in our application in Redux store.

- It is absolutely fine to store a lot of data in a single JS object.
- To not make REDUX store very clumpy and big we have SLICES. It's a small portion of our redux store.



↳ a slice.
(It's a logical partition)

→ There can be different type of slices

eg:- Cart slice, user slice.

When we click "Add" button, how does the data go to cart?

→ We can directly add data to the cart

⇒ You cannot directly modify your cart slice.

When we click on "ADD" button, it dispatches an action & calls a function and this function modifies the cart internally.

This function is known as REDUCER

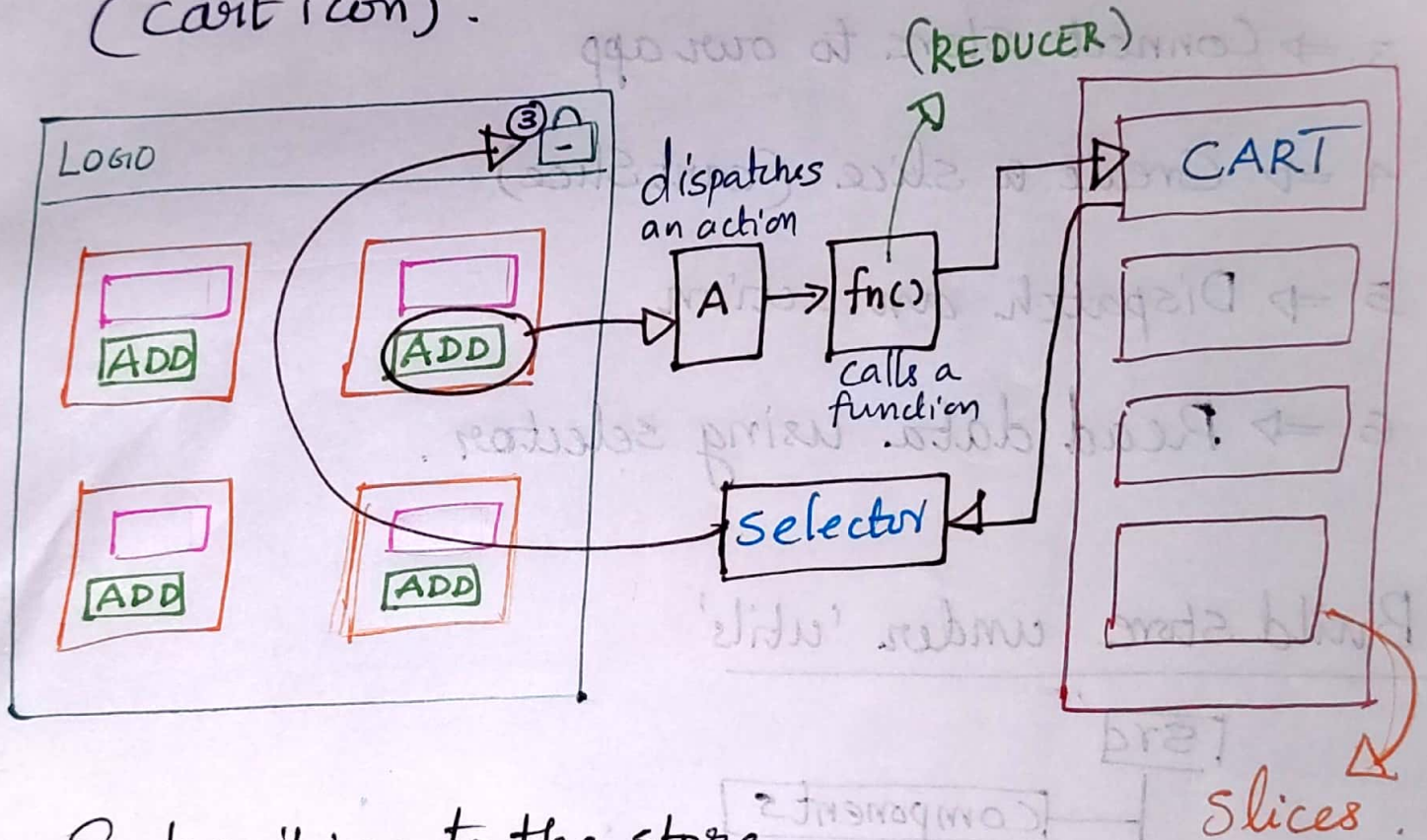
This REDUCER fn modifies a cart (slice of the redux store).

Now, the cart will have some data.

2. Now, to read data from the cart and show it (like no. of items in the cart will be shown up over cart icon).

⇒ For that we use SELECTOR

We will use 'Selector' to read data from store and it will modify the react component (cart icon).



Subscribing to the store

- phenomena of using selector
- means react component (here, cart icon) is in sync with the store (header component is subscribed to the store using selector).
- It will help automatically update header component.