


HANDWRITTEN NOTES

Props Drilling + Data Handling in React

 Save notes for later

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* Handling data for a web app is one of the most critical part.

* In a web app, there ~~is~~ is a

1. → UI layer on it (everything we see on browser)

2. → Data layer

UI layer (!imp)

→ written in JSX

→ at EOD, babel converts JSX into objects.

→ That big object structure is known as virtual DOM.

→ We need virtual DOM^{used} for reconciliation.

→ The previous virtual DOM is compared with current one and whatever the "diff" is kept in sync with actual html DOM.

→ The whole UI layer is powered by Data layer.

Data Layer :-

→ What does DL consists of ?

- To maintain data within the applications, we use state and props and more other things.

Difference between State and Prop ?

- Suppose if we have a container, we want a variable which have scope just within that container. It is known as STATE
- If we have to pass data between one component and another component, we can use PROPS

PROPS DRILLING

(install 'React Developer tools' chrome ext)

→ When data is passed from parent to child, and then to it's child & then again to it's child, this process is known as PROPS DRILLING

Eg:-

PROPS DRILLING

<AppLayout/> is our root component.

① Suppose, there is a local state in 'AppLayout' func called 'user'

```
const AppLayout = () => {
```

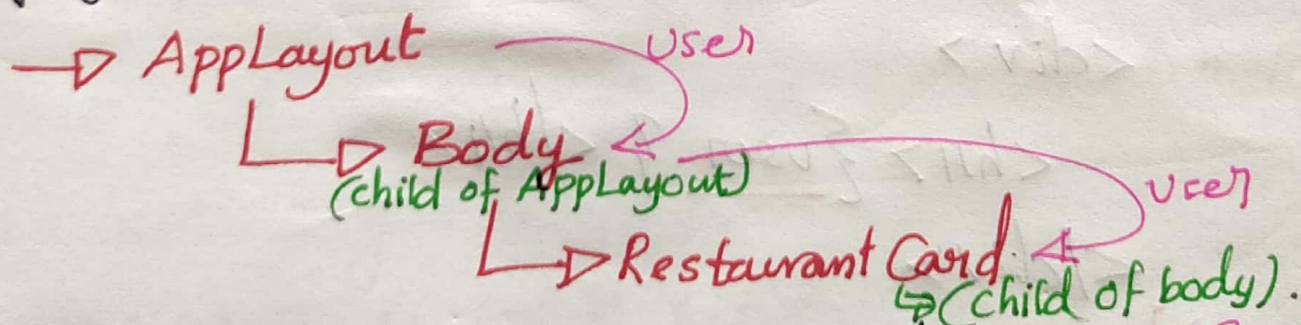
```
  const [User, set User] = useState ({
```

```
    name: "Ashraya"
```

```
    email: "ashraya.14@gmail.com" }));
```

② Suppose, if I want this information inside <RestaurantCard/>, you have to pass that info. How will I pass the data?

So, the hierarchy of components in our project is:-



a) So, first, I will pass the data to Body.

```
<Body user = {user} />
```


b) Now, 'Body' receives this as prop. :-

Const Body = ($\{ \text{user} \}$) \Rightarrow {

return (

★ $\langle \text{Restaurant-Card} \quad \text{user} = \{ \text{user} \} / \rangle$

c) Now, from Body, I passed that prop into `<RestaurantCard />`

d) Now, Inside my component `<RestaurantCard/>`
I can get this use9.

const RestaurantCard = ({user}) => {
 return (

 $\langle \text{div } v \rangle$

$\langle h_4 \rangle \{ \underline{\text{user}} \} \langle /h_4 \rangle$

</div>

)}

In real world react application, this hierarchy can go to lot more level.

★ What if I have to pass data from child to parent?

→ There are various ways to do this.

→ There are very less cases where you need data from child to parent.

Ways to do this :-

(*) We can build "Custom Hooks".

CONS OF PROPS DRILLING

* Is 'PROPS DRILLING' a good way?

① I just needed the 'user' info in `<RestCard/>` but we changed 3 files. `<Body/>` component does not needed the 'user' info.

So, basically, this will make our code cluttered

So, If we have a hierarchy of 2 or 3 levels, it is okay to pass props.

But, if we want this data under 10 levels, it's not a good way.

One way to solve this problem is using **REDUX**

② Suppose, we have data passing in from 10 components. It will make these 10 components to be rerendered.