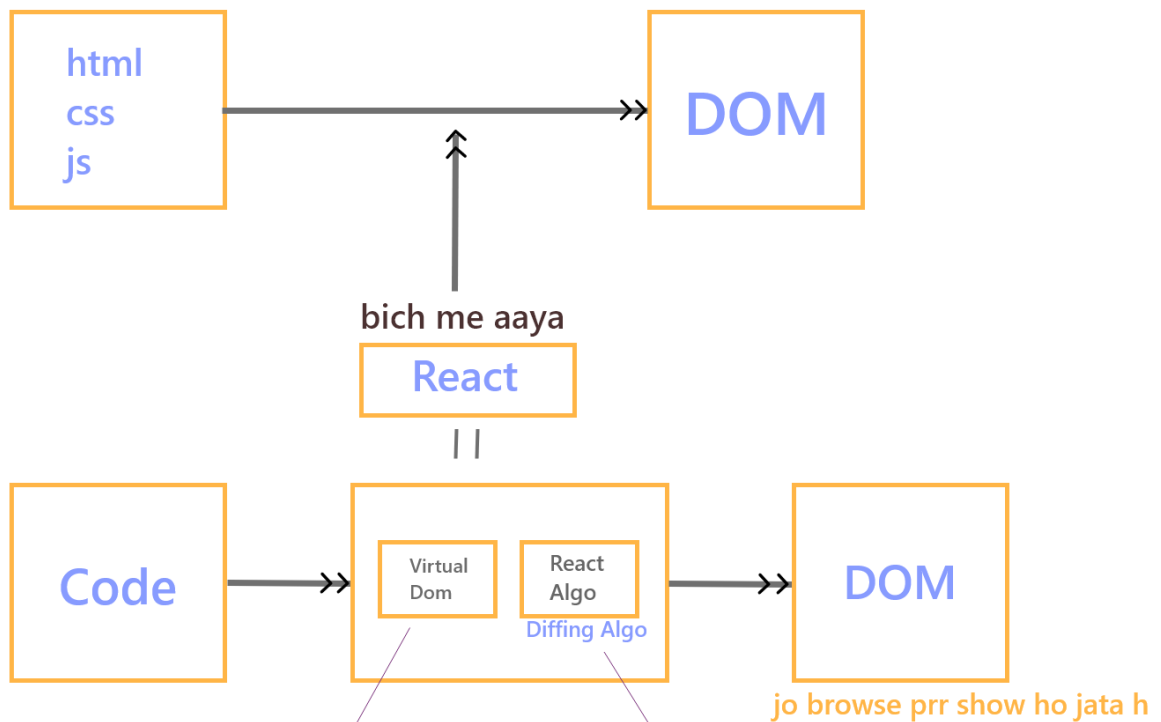# React

- React is Fronted library, which is used to build fast & efficient UI/UX.

- It is develop by FB/Meta.

why React ?

- very Fast.

React are very fast bcz of Virtual Dom

html
css
js

DOM

bich me aaya

React

| |

Code

Virtual Dom

React Algo

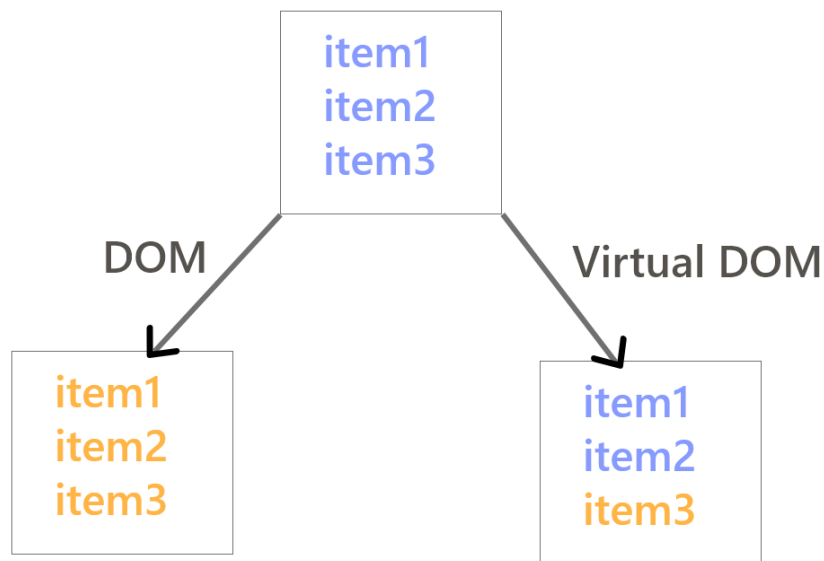Diffing Algo

DOM

jo browse prr show ho jata h

identify the require changes
kaun sa part h , jisko changes ka requirement hai Dom me usi ko change karta h.

Diffing Algo
Responsible hota h aapke Virtual Dom k changes ko Dom me reflect karr dena

React are very fast bcz of Virtual Dom

DOM

Virtual DOM

pahle thoda se bhi
change karne prr
pura ka pura Dom
dubara banta tha.

React aane se dekhega
kaun sa element change
karna tha bas usi ko change
karega.

- easy event handling

```
eg. addEventListner() : DOM me

 - sortcut provide karta react
```

- it's small library.

```
It's easy to learn
```

- It manage UI by state.

- react uses something called as Virtual Dom.

Framework:

> ek particular tools jisme sari chije mil jati h.
> kisi chij prr dependency jiski kam ho wo hota h Framework.

Library:

> Jisaki dependency jada ho , uske liye aapko tools dhudhane padegen ,
> uske liye aapko cheeje install karni padegi wo hoti h Library.

##

Dom prr kaise karte h

```html
 <!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>

    <div id="root">

    </div>

</body>

<script>
        //DOM me

        let ele = document.createElement("h1")
        ele.innerHTML='hello'

        let root = document.getElementById('root')

        root.appendChild(ele)


        // React me

</script>

</html>
```

react me kaise karte h

- pahle do cdn link jodte h

  -

```
 <script crossorigin
src="https://unpkg.com/react@18/umd/react.development.js"></script>
 <script crossorigin src="https://unpkg.com/react-dom@18/umd/react-
dom.development.js"></script>
```

  -

```
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<html lang="en">
<head>
<meta charset="UTF-8">
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</head>
<body>

<div id="root">

</div>

</body>

<script>
    //DOM me

    // let ele = document.createElement("h1")
    // ele.innerHTML='hello'

    let root = document.getElementById('root')

    // root.appendChild(ele)
```

```
        // React me


        let ele = React.createElement('h1',{
            children:['hello']
        })

        //  console.log(ele)

        ReactDOM.render(ele,root)


    </script>

    </html>
```