INTRODUCTION to REACT

Prerequisite

- Set up all the tools
- VS Code (recommended)
- Chrome browser (recommended)
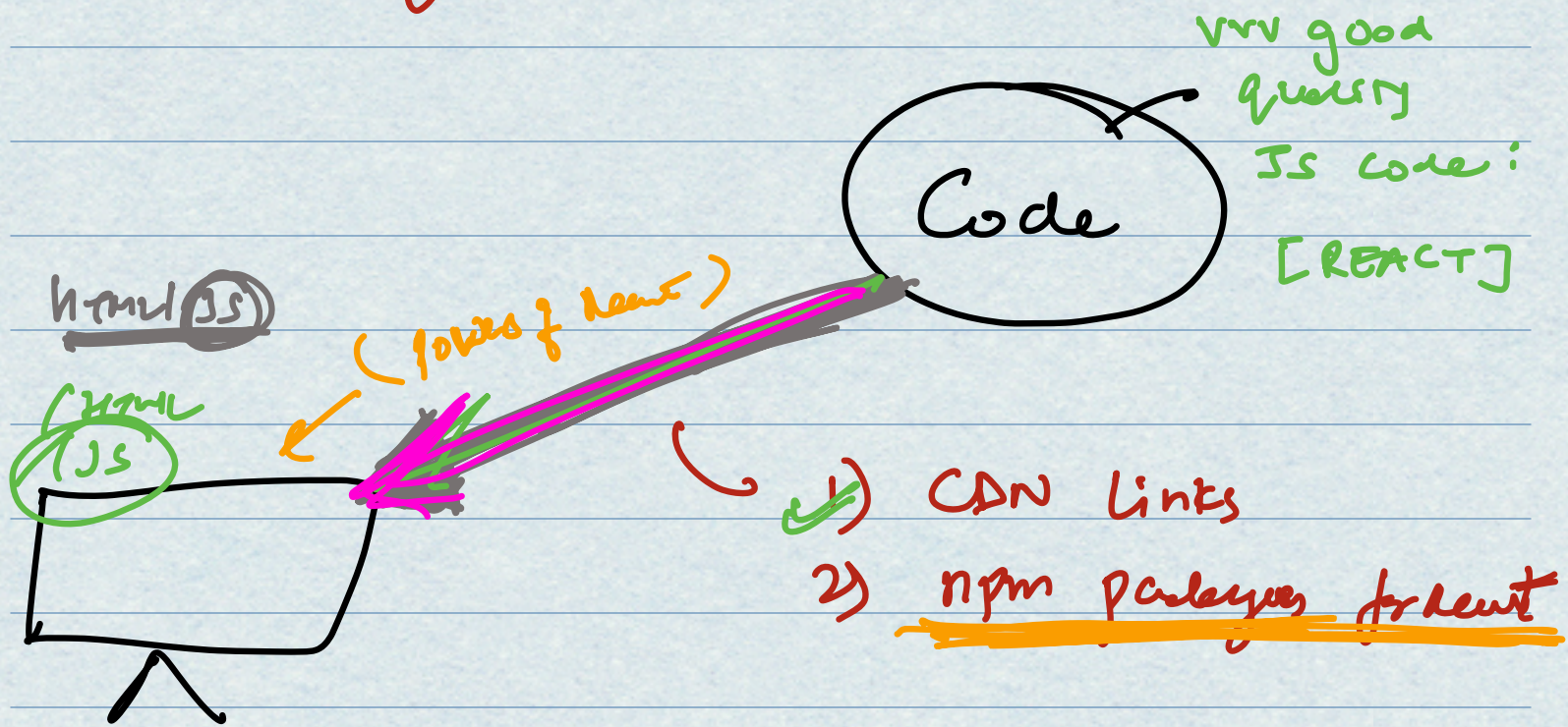
Agenda

- 'Hello World' → HTML & JS
  ↳ React
- Create an element   `<div> hello </div>`
- Create nested element
- root.render
- Functional Component
- JSX (Javascript & XML)
- JSX transpiler (Babel)
- Why JSX? Advantages.

React

- Open source library
- Built by developer at Facebook.

Code

vrv good quality JS code:
[REACT]

html JS

(HTML JS)

(power of React)

1) CDN links
2) npm packages for react

- React CDN + React DOM CDN

↓
all methods by React

- (React) & React DOM → used together

- Library for Creating Components & managing them.
- Structure of Components. (Behaviour / State mgmt.

REACT DOM

- Handles rendering of React Component to the DOM (Document Object Model).
- Make Components visible on the web browser.
- Specifically deals with web interaction with the DOM.

React. Create Element (a, b, c)

- TAG Name of HTML elem. ('h1')
- Properties of element (null) also
- Children of 'a' Text or any other element

ReactDOM. render (ReactElement , JS DOM)
we want to   element
render   where
                        React element
                        should be
                        mounted

PROPS (properties)

Function $\Longrightarrow$ Arguments

React $\Longrightarrow$ Props.

Props in react as parameters to the component.

parameter
(Argument)

```
function print Name ( name )  {
    return `Hello ${name}`
}

printName ( " Aleagh") ;
printName (' Lahul') ;
```

Similarly,

- In React, props allows component to receive values from their parent component & use them to render accordingly.

- props ⟹ Way to pass data from parent to child.

✓ / Home →
✓ { / Profile →
✓ { About →

JSX

- JSX → Syntax extension for Javascript that looks similar to XML/HTML

    ↓

  JavaScript + XML/HTML

- Write HTML like code in JS files

Functional Component → Javascript function that returns react element.

```
function App () {
    return <h1> Hello </h1>;
}
```

ReactDOM.render (<App /> , root Elem)

JSX tag ⇒ React element representing
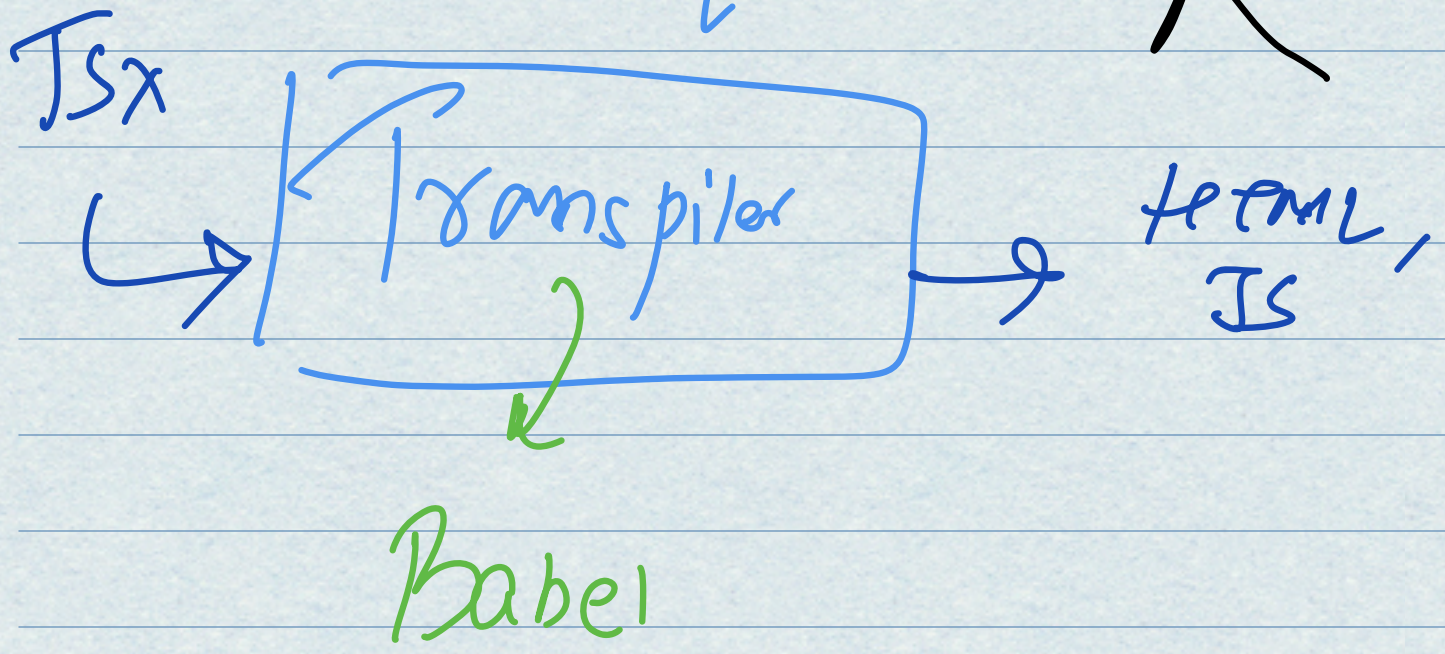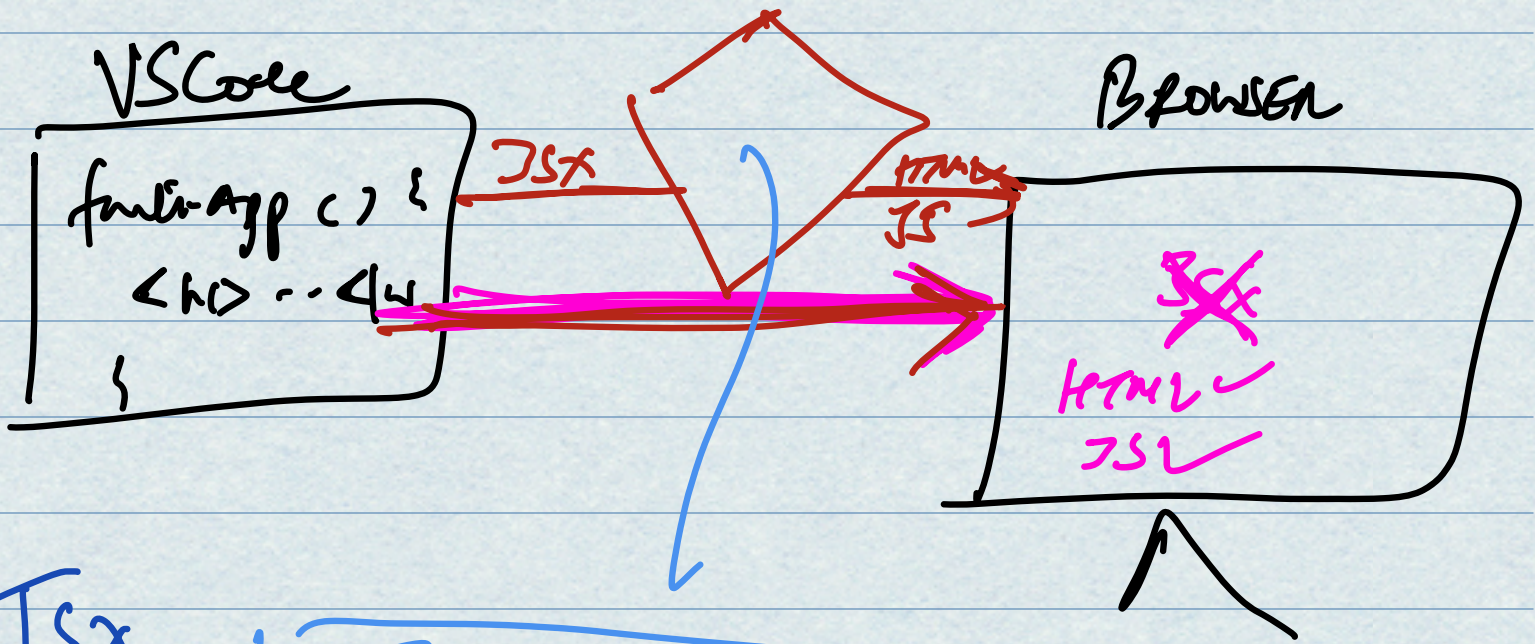the App Component!

(Similar to Creating instance of class
OR
Calling a function)

Browser only Understands
HTML , CSS & JS Code

JSx ??

Browser won't
allow /
understand it!

VSCode

```
funct-App ( ) {
    <h1> ... </h1>
}
```

JSX → HTML JS

BROWSER

~~JSX~~

HTML ✓
JS ✓

JSX

→ | Transpiler | → HTML, JS

Babel

Advantages to JSX

① JSX looks like HTML.

② Clear layout

③ Visual Component Structure.

④ → Syntactic Sugar
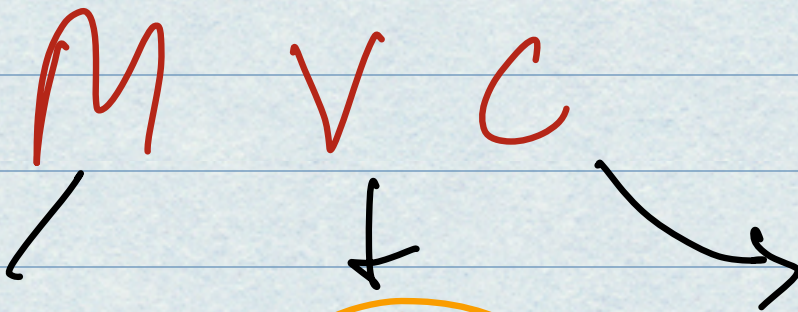   ↓
   easy JS integration

Library	Framework
Responsible for one aspect.	Complete package
React is for View layer	Angular

M V C

Model   View   Controller

Data   · UI   State mgmt ·
HTTP Lib   · Components   Event binding
Co   Detecting

routing.

(FB)

==React is ONLY responsible for== View
==layer==

ANGULAR → Complete Package.
↑
google

(IMDB) like project

React > Angular

- If we don't want to use everything package provides
- Flexibility