

### 33. React.js

CodeSandbox - The online code editor for React

index.html :-

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title> JSX </title>
    <link rel="stylesheet" href="style.css" />
  </head>

  <body>
    <div id="root" ></div>
    <script src=". /src/index.js" type="text/JSX">
      </script>
  </body>
</html>
```

index.js :-

```
var React = require("react");
var ReactDOM = require("react-dom");
```

```
ReactDOM.render(<h1>Hello World! </h1>,
  document.getElementById("root"));
```

O/P:- Hello World!

Inside the react module, there is Babel (Javascript Compiler). It takes next generation JS and compile it to the version of JS that every browser can understand.

Can

He also can use :-

```
import React from "react";
import ReactDOM from "react-dom";
        ↴(foobar)
```

index.js :- Using multiple html elements :-

ReactDOM.render (

```
<div>
```

```
<h1>Hello World!</h1>
```

```
<p>This is a paragraph</p>
```

```
</div>,
```

```
document.getElementById("root")
```

```
);
```

index.js :-

```
const name = "Tanish";
```

```
const num = 7;
```

ReactDOM.render (

```
<div>
```

```
<h1>Hello {name}</h1>
```

```
<p>Your lucky number is {num}</p>
```

```
</div>,
```

`document.getElementById("root")  
);`

O/P:- Hello Tanish!

Your lucky number is 7

Math.random():- (in JS)

It returns a random no. b/w 0 and 1 (not 1)

Math.random() used with Math.floor() can be used to return random integers.

→ // Returns a random integer from 0 to 9:-  
`Math.floor(Math.random() * 10);`

→ // Returns a random integer from 0 to 100:-  
`Math.floor(Math.random() * 101);`

index.js:-

`const fname = "Tanish";`

`const lname = "Sharma";`

`<h1> Hello {{fname + " " + lname}} ! </h1>`

`<h1> Hello {{fname}} {{lname}} ! </h1>`

`<h1> Hello {{`${{fname}} ${lname}`}} ! </h1>`

## Challenges:-

- // Create a react app from scratch
- // It should display 2 paragraph HTML elements
- // The paragraphs should say:
- // Created by YOURNAME
- // Copyright by CURRENTYEAR

### index.js :-

```
const name = "Tamish";
const currentDate = new Date();
const year = currentDate.getFullYear();
```

### React DOM render :-

```
<div>
  <p>Created by {name}</p>
  <p>Copyright {year}</p>
</div>
document.getElementById("root")
);
```

### Changing Color of element :-

```
index.js :->
<h1> className="heading" > My Favourite Foods </h1>
```

```
style.css :->
.heading {
  color: red;
}
```

html global attribute → contentEditable  
in JSX → contentEditable

index.js :-

Read DOM. render (

<div>

<h1 className="heading"> My Fav. Foods </h1>

<div>



</div>

</div>

</div>

document.getElementById("root")

);

style.css :-

.food-img {

height: 100px;

width: 100px;

also const img = " - - link " ;

<img src={img} />

always remember to add alt attribute for image :-

```

```

Inline Styling for Read Elements :-

```
ReadDOM.render(
  <h1 style={{color: "red"}}>Hello World!</h1>
);
```

index.js :-

```
const customStyle = {
  color: "red",
  fontSize: "20px",
  border: "1px solid black"
};
```

```
<h1 style={{...customStyle}}>Hello World</h1>
```

also `customStyle.color = "blue";`

## React Components :-

- Components

- App.jsx

- Heading.jsx

- List.jsx

- index.jsx

## index.jsx :-

```
import React from "react";
```

```
import ReactDOM from "react-dom";
```

```
import App from "./Components/App.jsx";
```

```
ReactDOM.render(
```

```
  <div>
```

```
    <App />
```

```
  </div>,
```

```
  document.getElementById("root")
```

```
);
```

## App.jsx :-

```
import React from "react";
```

```
import Heading from "./Heading.jsx";
```

```
import List from "./List.jsx";
```

```
function App() {
```

```
  return <div>
```

```
    <Heading />
```

```
    <List />
```

```
  </div>
```

```
}
```

```
export default App;
```

Heading.jsx :-

```
import React from "react";
```

```
function Heading() {
```

```
    return <h1> My Favourite Foods </h1>;
```

```
export default Heading;
```

List.jsx :-

```
import React from "react";
```

```
function List() {
```

```
    return (
```

```
        <ul>
```

```
            <li> Momo </li>
```

```
            <li> Pizza </li>
```

```
            <li> Cream </li>
```

```
        </ul>
```

```
    );
```

```
export default List;
```

Import - export, module :-

- index.js
- math.js

math.js :-

const pi = 3.1415962;

```
function doublePi() {
    return pi * 2;
}
```

```
function triplePi() {
    return pi * 3;
}
```

export default pi;

export { doublePi, triplePi };

index.js :-

import React from "react";

import ReactDOM from "react-dom";

import pi, { doublePi, triplePi } from "./math.js";

ReactDOM.render(

<ul>

<li>{pi}</li>

<li>{doublePi()}</li>

<li>{triplePi()}</li>

</ul>

): -----

Alternate:-

import \* as pi from ".mathjs";

{pi.default}  
{pi.doublePi()}  
{pi.triplePi()}