14 Feb 24

Scripts.

↳ We create a script to start our app using npm
So to do that we write in our

Pakage.json

```
"scripts" : {
    "start" : "parcel index.html"   ← this will start project in development mode.
    "build" : "parcel build index.html"   ← to build the project in development mode
```

If you are new in the project go in the pakage.json and search for start or build to get started with any project. This are "industry standards"

→ Now to start a app we will write

- npm run start ← to start or npm start
- npm run build ← to build

→ git push
→ comment code all code from app.js except import from react

React Element / core of React

```
const heading = React.createElement("h1", {id:heading}, "Namaste React");
```

This creates a object

when we render to the dom it become a html tag.

```
const root = ReactDOM.createRoot(document.getElementById("root"));
```

↳ ReactDOM is used whenever we want to display some item on screen.

```
root.render(heading);
```

when the root.render is used it will replace every thing that is present in that root

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JSX

← It is not a part of React

→ It is a java script made by face book engineers to make it to write the react code.

JSX merges the HTML, CSS and javascript to make or write code easily.

⇒ `const jsxHeading = <h1> Namaste React </h1>;`

↳ It is not html inside Javascript

↳ It is similar to html

→ this creats a React object which then rendered by React and converted into Html tag

then `root.render(jsxHeading);`

So javascript does not understand this JSX directly it understands the Emmac script.

React → Parcel → Babel helps us to write like this

This code is transpiles by the parcel before even it reaches the browser.

Babel → this helps to convert the code.

→ Java script compiler

→ One of the most important package.

JSX → (we write (looks like html)) → React.Create element → object → Redend to dom as html element → html tag

→ In JSX we use CamelCase → tabIndex ✓
x tabindex x

⇒ Class
Const jsxHeading = <h1 className="head" tabIndex="1"> Namaste React </h1>

↑ to create a class

↑ the element can navigated through keyboard tab key

In multiple line give parenthesis/Round brackets

const jsxHeading = (<h1 className="head">
Namaste React </h1>
)

Extensions
→
1) Prettier - format code
2) Bracket pair colourizer
3) Better comments

React Components

① Class based components
② Functional Components

Functional Component → A function that returns a JSX code is a functional component.

first character is capital

```
const HeadingComponent = () => {
    return <h1> Namaste React Fun. Component </h1>;
};
```

return

OR

```
const HeadingCom = () => <h1> Name </h1> ;
```

OR (Multiple lines)

bracket

```
const HeadingCom = () => (
    <h1 className="heading"> Namaste React </h1>
);
```

Rendering a heading component

```
root.render(<HeadingComponent/>);
```

```
const Title = () => <h1> This is title </h1>;
const Heading = () => (
    <div id="container">
        <Title />
        <h2> This is sub heading </h2>
    </div>
);
```

Component Composition

Including one component into another component

- We can write javascript inside your JSX code just using curly bases { }

ex →
```
const Heading = () => (
    <h2> This is subheading </h2>
    { console.log("Hello"); }
)
```

Javascript

Inserting ~~HTML inside a~~ React ~~Javascript~~ element inside component

ex →
```
const elem = <span> React Element </span>;
const title = (
    <h1 className="head" tabIndex="5">
        {elem} <br>
        Namaste JS !
    </h1>
);
const Heading = () => (
    <div id="container">
        {title}
        <h1 className="head"> Namaste React Fun. Comp </h1>
    </div>
);
```

Without running any script that is being passed inside the { } JSX sanitizes it.

Which prevents Cross Site Scripting ← an type of attack that can be done by attackers.

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</br> ⟺

Same meanings.