React Complete Notes – Modern Styled

1. HTML Webpage vs React Webpage

HTML Webpage
• Uses pure HTML, CSS, JavaScript.
• Browser reads HTML directly.
• Hard to update UI.
• No reusable components.

React Webpage
• Uses Components (reusable UI blocks).
• Uses JSX (HTML + JS).
• UI updates automatically.
• Needs a build tool (Vite/Webpack).
• Faster with Virtual DOM.

2. React vs Angular

React
• Library (not framework).
• Uses JavaScript + JSX.
• Easy to learn.
• Very fast.

Angular
• Full framework.
• Uses TypeScript.
• Harder to learn.
• Heavy but powerful.

3. What is TypeScript?

• JavaScript + Types.
• Developed by Microsoft.
• Helps avoid errors.

Example:
JavaScript:
let age = 25;
age = "twenty-five"; (No error)

TypeScript:

let age: number = 25;
age = "twenty-five"; (Error)

4. Which Comes First: Node or React?

1. HTML
2. CSS
3. JavaScript
4. React
5. Node.js

React → Frontend
Node → Backend

5. JSX (JavaScript XML)

• Allows writing HTML inside JavaScript.
• Needs Babel to convert.

Example:
const element = <h1>Hello React</h1>

6. Babel Compiler

• Converts JSX + ES6 → browser-friendly JavaScript (ES5).

7. Vite React Setup

1. npm create vite@latest projectname
2. Choose React + JavaScript
3. cd projectname
4. npm install
5. npm run dev

8. React File Structure (Vite)

project/
■■■ index.html
■■■ package.json
■■■ vite.config.js
■■■ src/
■■■ main.jsx
■■■ App.jsx
■■■ components/
■■■ assets/