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# React.JS for beginners

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# REACT.JS FOR BEGINNERS

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# INTRODUCTION TO REACT.JS

- React.js is a popular JavaScript library for building user interfaces. It's maintained by Facebook and a community of individual developers. React allows developers to create large web applications that can change data, without reloading the page.

# PREREQUISITES & SETUP

- To start with React.js, you need a basic understanding of HTML, CSS, and JavaScript. Familiarity with ES6 features like classes, arrow functions, and destructuring is also beneficial. Setting up a React environment typically involves Node.js and npm (node package manager).

# UNDERSTANDING JSX

- JSX (JavaScript XML) looks like HTML and is used in React to describe the UI. It's a syntax extension for JavaScript and allows you to write HTML elements in JavaScript and place them in the DOM without any `createElement()` and/or `appendChild()` methods.

# COMPONENTS IN REACT

- Components are the building blocks of any React application. There are two types of components in React - Class components and Functional components. Class components are ES6 classes that extend from `React.Component` and can hold state and lifecycle methods.

# FUNCTIONAL COMPONENTS & HOOKS

- Functional components are JavaScript functions. They accept a single 'props' object argument with data and return a React element. React Hooks, introduced in version 16.8, allow functional components to have state and other React features.

# STATE AND PROPS

- State is an object that holds some information that may change over the lifetime of the component. It is managed within the component (similar to variables declared within a function). Props (short for 'properties') are read-only components. They are an object that stores the value of attributes of a tag and work similar to HTML



# VIRTUAL DOM EXPLAINED

- The Virtual DOM (VDOM) is a programming concept where an ideal, or "virtual", representation of a UI is kept in memory and synced with the "real" DOM by a library such as ReactDOM. This process is known as reconciliation.

# HANDLING EVENTS

- Event handling in React is very similar to handling events on DOM elements. However, there are some syntactic differences: React events are named using camelCase, rather than lowercase. With JSX, you pass a function as the event handler, rather than a string.

# REACT ROUTER

- React Router is the standard routing library for React. It enables the navigation among views of various components in a React Application, allows changing the browser URL, and keeps UI in sync with the URL.

# LEARNING PATH & RESOURCES

- To effectively learn React.js, practice by building small projects like a to-do list, a blog, or a weather app. Join the React community for support and keep up with the latest updates. Remember, practice and patience are key in learning any new technology.