What is React?

React, sometimes referred to as a frontend JavaScript framework, is a JavaScript library created by Facebook. It is primarily used for building UI components.

How does React Work?

React creates a **Virtual DOM** in memory. Instead of directly modifying the browser's DOM, React makes changes in the Virtual DOM first. Once the changes are determined, React updates only the necessary parts of the actual DOM, leading to improved performance and efficiency.

React follows a **reconciliation process** where it finds the differences (diffing algorithm) between the previous and new Virtual DOM and updates only the necessary parts in the browser DOM.

React.js History

- **Initial Release:** React.js was first released to the public as **V0.3.0** in **July 2013**.
- **First Use:** React was first used internally by Facebook in **2011** for its Newsfeed feature.
- **Creator:** Facebook Software Engineer **Jordan Walke** developed React.
- **Current Version:** The latest stable version of React is **V18.0.0** (as of April 2022).
- **create-react-app Version:** The current version of **create-react-app** is **v5.0.1** (as of April 2022). It includes built-in tools such as **Webpack, Babel, and ESLint** to simplify the development setup.

This tutorial will cover the essential aspects of React, including components, state management, hooks, and best practices to build efficient web applications.