

# Important **React** Concepts

## ★ Virtual DOM

The virtual DOM is only a virtual representation of the DOM. Every time the state of our application changes, the virtual DOM gets updated instead of the real DOM.

## ★ Custom Hooks

Custom hooks are reusable functions that a React JS developer can use to add special and unique functionality to the React applications

## ★ HOC

HOCs are functions that take a component as an argument and returns a new modified component to support Reusability

## ★ Component Lifecycle

Each component in React go through a lifecycle which includes three primary phases :

1. Mounting
2. Updating
3. Unmounting

## ★ Context

Context is a feature that lets you pass data through the component hierarchy without having to pass props down to individual components like a global data

## ★ React Server Components

React Server Component is a way to write React component that gets rendered in the server-side with the purpose of improving React app performance.

## ★ Code Splitting

Code splitting consists of separating the code into several packages or components that can be loaded on demand or in parallel. This means that they are not loaded until they are needed.

## ★ Props and Prop Types

Props are used to pass data from one component to other and prop types is a way to check the type of the data to make sure the passed data is correct



## ★ React Router

React Router is a library for implementing routing in Reactjs applications. It helps to navigate between pages/components in a single page app

## ★ Conditional Rendering

Conditional Rendering is used to render content based on certain conditions using Ternary Operator for multiple conditions and `&&` for single condition

## ★ List Rendering

You can map through an array to render a list of content with using JSX EXPRESSIONS

## ★ React Hooks

React hooks are functions which are used to add extra functionality to our app like state or sideeffects

Common React Hooks:

- `useState()`
- `useEffect()`
- `useRef()`
- `useMemo()`
- `useContext()`
- `useCallback()`
- `useId()`
- `useTransition()`