

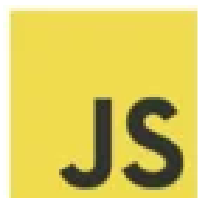
## React JS Essentials

Welcome to the React.js Course! This course is designed for developers who want to quickly learn the basics of React.js, one of the most popular JavaScript libraries for building user interfaces. Throughout this course, you will gain a solid understanding of React.js fundamentals, enabling you to create dynamic and responsive web applications.

### Course Objectives

- Understand the core concepts of React.js
- Learn how to create and manage components
- Implement state and props to manage data
- Utilize React hooks for functional components
- Build single-page applications using React Router
- Integrate APIs and manage side effects
- Apply best practices for structuring and styling React applications

### Tech Stack To Be Covered



JAVASCRIPT



React JS



Bootstrap

# React.js Essentials

## Week 1: Introduction to React JS

- Introduction to React JS
- Understanding the Virtual DOM
- Setting up the development environment (Node.js, npm, create-react-app)
- JSX syntax and its advantages
- Components and Props

## Week 2: State Management in React

- Understanding state and its importance
- Handling state in functional components using Hooks
- Class components and state management
- Lifecycle methods in class components
- Using context for state management

## Week 3: Handling Events and Forms

- Handling events in React
- Controlled vs. Uncontrolled components
- Form handling in React
- Form validation using built-in and custom validators
- Implementing controlled components

## Week 4: Routing and External Data

- Introduction to React Router
- Setting up routes in a React application
- Fetching external data using APIs

- Managing asynchronous operations with useEffect Hook
- Integrating external libraries and components

**Project:** Throughout the course, students will work on a final project to apply their knowledge of React JS. This project will involve building a dynamic web application from scratch, incorporating concepts learned in each module.

**Assessment:**

- Weekly quizzes to test understanding of concepts covered
- Final project submission and presentation

**Prerequisites:**

- Basic understanding of HTML, CSS, and JavaScript
- Familiarity with modern JavaScript ES6+ syntax