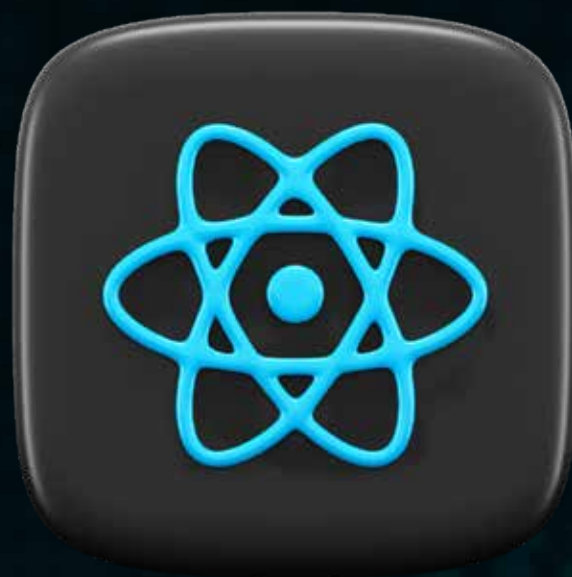


React Native Full Stack Development (Including JavaScript)



Course Curriculum

Introduction to **React Native Development**

Overview of Mobile Development

- Introduction to mobile app development and the significance of cross-platform development.
- React Native: A framework to build mobile applications for iOS and Android using a single codebase.
- Differences between React Native and Native Development (iOS/Android).
- Overview of Mobile App Development: Native vs Hybrid vs Cross-Platform.
- Role of React Native and Firebase in Full-Stack Mobile App Development.
- Setting Up the Development Environment: Visual Studio Code, React Native CLI, Expo, and Firebase.

Front-End Development

Module-1: HTML, CSS, and Bootstrap

- **HTML Fundamentals:** Structure of an HTML Document, Semantic HTML5, Forms, Tables, and Multimedia
- **CSS Basics:** Selectors, Box Model, Flexbox, Grid Layout, Styling Forms, Animations, and Transitions
- **Bootstrap:** Grid System and Breakpoints, Components (Navbar, Cards, Buttons, Forms), Customizing Themes

- **Responsive Design:** Using Media Queries, Mobile-First Design Principles.

Module-2: JavaScript (Pre-requisite)

- **JavaScript Basics:** Variables (var, let, const), Data Types (String, Number, Boolean, Undefined, Null), Type Conversion
- **Control Flow:** Conditionals (if, else, switch), Loops (for, while, do while)
- **Functions and Objects:** Declaring Functions, Arrow Functions, Objects, Arrays, and Array Methods
- **Advanced JavaScript Concepts:** ES6 Features, Destructuring, Template Literals, Spread/Rest Operators, Arrow Functions, this keyword
- **Asynchronous JavaScript:** Callbacks, Promises, async/await, Closures, Higher-Order Functions

Module-3: React Native Basics

- **Introduction to React Native:** React Native Overview, Setting up a React Native Project with Expo or React Native CLI.
- **Components and JSX:** Understanding Functional and Class Components, JSX Syntax.
- **State and Props:** Managing state in components, passing data through props.
- **Handling User Input:** Forms, Text Inputs, Buttons, Handling Events

- **Styling in React Native:** Using StyleSheet, Flexbox, and responsive design for mobile apps

Module-4: React Navigation & State Management

- **React Navigation:** Setting up Stack, Tab, and Drawer Navigation.
- **React Navigation:** Passing Params, Deep Linking, and Nested Navigators.
- **State Management:** Introduction to Context API and Redux for global state management.
- **Handling Async Operations:** Making HTTP requests with fetch or Axios for interacting with APIs.

Module-5: Firebase Backend Integration

- **Introduction to Firebase:** Firebase Authentication, Firestore Database, Firebase Storage.
- **Firebase Authentication:** User Sign Up, Login, Logout, Password Reset.
- **Firebase Firestore:** Cloud Firestore Basics, Reading, Writing, and Updating Data.
- **Firebase Storage:** Uploading and retrieving files (Images, Videos).
- **Real-Time Database:** Implementing Real-Time Data Synchronization with Firebase.

Module-6: Deployment of React Native Mobile App

- **Deploying React Native Apps:** Using Expo or React Native CLI for app builds and publishing to the App Store and Google Play.
- **Firebase Hosting:** Deploying static sites and front-end applications using Firebase Hosting for web applications if required.

Module-7: Capstone Project

- **Project Objective:** Build a Full-Stack Mobile Application using React Native (Front-End) and Firebase (Backend-less data storage).
- **Example Projects:** E-Commerce App, Social Media App, Task Management App, or Personal Finance Tracker.
- **Final Deliverables:** A working mobile app, Firebase integration, and deployment on Google Play/Apple App Store.

Course Duration

- **Total Duration:** 12 to 16 weeks
- **React Native Development:** 8-10 weeks
- **Firebase Integration and Real-Time Data:** 3-4 weeks
- **Project Development:** 2-4 weeks