

REACT NATIVE SYLLABUS

Module 1: Introduction to React Native

- What is React Native and how it works
- Difference between ReactJS and React Native
- Advantages of cross-platform development
- Setting up environment (Node.js, Expo CLI / React Native CLI)
- Project structure overview
- Running first mobile app

Module 2: JavaScript & ES6 Refresher

- Variables (let, const)
- Arrow functions
- Template literals
- Destructuring
- Spread & rest operators
- Modules (import/export)

Module 3: Core Components

- View, Text, Image
- TextInput, Button, ScrollView
- FlatList & SectionList
- Styling with StyleSheet
- Flexbox layout system

Module 4: Navigation

- Introduction to navigation
- Stack Navigation
- Tab Navigation

- Drawer Navigation
- Passing data between screens

Module 5: State & Props

- Understanding Props
- Managing State with useState
- Component lifecycle
- Conditional rendering

Module 6: React Hooks

- useState
- useEffect
- useRef
- Custom hooks

Module 7: Handling User Input

- Forms in React Native
- Handling input fields
- Validation techniques
- Keyboard handling

Module 8: API Integration

- Fetch API / Axios
- GET, POST, PUT, DELETE
- Handling loading and errors
- Displaying dynamic data

Module 9: Async Storage & Local Data

- Introduction to AsyncStorage
- Storing and retrieving data

- Local data persistence

Module 10: Device Features

- Camera access
- Image picker
- Geolocation
- Permissions handling

Module 11: UI & Design

- Styling best practices
- Responsive design
- Using UI libraries (React Native Paper)
- Animations basics

Module 12: Authentication

- Login & Signup screens
- JWT authentication
- Secure storage
- Protected routes

Module 13: State Management

- Context API
- Introduction to Redux
- Managing global state

Module 14: Push Notifications

- Firebase Cloud Messaging (FCM)
- Local notifications
- Handling notifications

Module 15: Performance Optimization

- Avoiding unnecessary re-renders
- Memoization techniques
- Lazy loading

Module 16: Testing & Debugging

- Debugging tools
- Console logs
- Testing basics

Module 17: Build & Deployment

- Building APK & IPA
- Publishing on Google Play Store
- Publishing on Apple App Store
- App signing and configuration

Module 18: Real-World Projects

- Todo App
- Notes App
- API-based App (Weather/News)
- E-commerce Mobile App