

Course Name : **MOBILE APP DEVELOPMENT WITH REACT NATIVE**
Duration : **4 days**
Level : **Beginner**
Mode : **Physical Classroom or Online Live Instructor**

COURSE DESCRIPTION:

In this React Native training, we shall get the candidates up and running with React Native quickly and teach the core knowledge the candidates need to deeply understand, and build React components for mobile devices. We start teaching React first and build the single-page Web Application using react. Once you are comfortable with React building blocks, we shall teach you all essentials to create your own React Native apps, publish them to the Google Play Store and Apple App Store and dive deep into the React Native ecosystem. At the end of the course, the candidates will build two mobile apps from scratch.

React Native is an excellent solution for developing apps on mobile in a fraction of the time it takes to make an equivalent iOS or Swift app. That is probably the reason why Instagram, Airbnb, Skype, and many other global companies are using it to build their mobile apps. By the end of the course, we shall teach all the steps required to get it into an app store.

WHAT WILL YOU LEARN?

We will start by mastering the fundamentals of React, including JSX, "props", "state", and event handling. Special attention has been paid to creating reusable components that you'll be able to make use of on your own fantastic projects. React Native is an excellent solution for developing apps on mobile in a fraction of the time it takes to make an equivalent iOS or Swift app. You will love seeing your changes instantly appear on your own device, rather than waiting for Swift/Java code to recompile! This quick feedback loop, along with excellent cross-platform support, is what has catapulted React Native to the top must-have skill for JavaScript Engineers.

PREREQUISITE:

Beginners. Knowing JavaScript Basics is an added advantage to attending this course. Anyways, we spent a day teaching the fundamentals of JavaScript before diving into the actual modules.

METHODOLOGY:

This program will be conducted with interactive lectures, PowerPoint presentations, discussions, and practical exercise along with the real-world projects. This course can be conducted as instructor-led (ILT) or virtual instructor-led training (VILT).

JOB SCOPE:

After completing this course, the candidates can join for the following job roles,

- Mobile Developer
- Mobile App Developer (iOS & Android)
- React Native Developer
- Mobile Application Developer
- Frontend UI Developer
- React Developer
- Hybrid Mobile App Developer

MODULE 1: INTRODUCTION

- Welcome
- Introduction to ES6, React & React Native

MODULE 2: MODERN JS - ES6 & TYPESCRIPT

- New Variable Declarations: Let & Const
- De Structuring
- Spread & Rest Operators
- Arrow Functions
- Async & Await

MODULE 3: WHY REACT.JS

- Introduction
- What is the Composition
- What is a Declarative Code
- Unidirectional Data Flow

MODULE 4: REACT COMPONENTS

- Create a Functional React component
- Adding Props and State to the component
- Working with lists
- Adding keys to list items
- Using React Fragments

MODULE 5: HOOKS IN REACT

- Generating a project with Create React App
- Touring a Create React App project
- DE structuring arrays and objects
- Understanding the useState Hook
- Working with useEffect
- Understanding the dependency array
- Intro to the state management & Redux
- Create a custom Hook

MODULE 6: ASYNCHRONOUS REACT

- Fetching data with Hooks
- Displaying data from an API
- Handling loading states
- Working with render props

MODULE 7: UP AND RUNNING WITH REACT NATIVE

- Introduction
- What does it do for us? Why choose it?
- Pros and cons
- Architecture
- Sharing with web projects
- What React Native code looks like
- Leveraging your React knowledge

MODULE 8: REACT & REDUX REVIEWS

- Introduction
- Redux reminder
- Reducers, actions, stats, store, and middleware
- React reminder
- SFCs vs Class-based components

MODULE 9: THE DEVELOPMENT PROCESS

- Set up a Dev Environment
- Creating a new React Native app
- How to run it on a tethered device
- How to run it on a wireless device
- How to run it in an Android emulator
- How to run it on an iOS simulator
- Debugging in a browser window
- Logging, breakpoints, stepping through
- YellowBoxes and RedBoxes

MODULE 10: PLATFORM SPECIFIC DEVELOPMENT

- Develop apps on different platforms?
- Why would we ever do this?
- Technical Roadblocks
- The DatePicker -iOS and Android
- Using the Platform module

MODULE 11: LAYOUT COMPONENTS

- View
- SafeAreaView
- ScrollView
- Pinch-to-zoom
- KeyboardAvoidingView
- How to create Model Views
- Controlling the OS's status bar

MODULE 12: FLEXBOX FOR NATIVE LAYOUTS

- Where it came from
- Flexbox on the web is NOT flexbox on native
- Containers and items
- flexDirection
- flexBasis vs width/height
- flexshrink, flexGrow
- The flex shorthand
- justifyContent and alignContent
- flexWrap

MODULE 13: STYLING REACT NATIVE APPS

- How React Native styles differ from CSS
- How to apply styles
- How to control style inheritance
- Style arrays
- Four methods of defining styles
- Common properties
- Cross Platform Fonts
- Conditional and Programmatic Styles

MODULE 14: NAVIGATION

- How to get React Navigation
- The three types of navigators
- StackNavigator
- Routing object
- Navigation config
- How to pass params when navigating
- TabNavigators
- Three types of TabNavigators
- How to set icons
- DrawerNavigator
- Examples and demos

MODULE 15: AJAX IN REACT NATIVE

- The fetch API
- How to show a loading indicator
- How to make requests and populate affordances
- Security in a native environment

MODULE 16: LIST COMPONENTS, TOUCHABLES & BUTTONS

- Pickers
- FlatList
- SectionList
- Button events and props
- Why touchables?
- TouchableWithoutFeedback
- TouchableNativeFeedback
- TouchableOpacity
- TouchableHighlight
- How to disable a touchable

HANDS-ON PROJECT 1: REACT NATIVE TODO APP

- Setting up Expo
- Getting started with App.js
- Build Tasks section
- Creating a reusable Task component
- Passing props
- Styling Task component
- Write a task section
- Task state
- Adding a task
- Deleting a task
- Final Touch to the Mobile App

HANDS-ON PROJECT 2: REACT NATIVE MOVIE APP

- Introduction
- Setting up Expo
- Getting started with App.js
- Setup a Movie DB API Key
- Setting up Styles
- Building Movie List Component
- Building Movie Component
- Passing props and state
- Create Popup movie description
- Build a search component

- Final Touch to the Mobile App
- App Store Preparation
- Deploy the mobile application in Android & iOS

CONCLUSION

- QA
- Useful React Resources
- Feedback