

Updated 05/17/2024

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React Native training

3 days (21 hours)

Presentation

[React Native](#) is Facebook's open-source technology for producing native mobile applications on iOS, Android and soon on Windows 10 Mobile. This 3-day training program is an intensive digest of best practices for tackling a React Native project. React in general and React Native in particular have introduced new ways of "thinking" about an application before coding it, and this impacts the whole design, production and deployment process.

Here, we'll be focusing 100% on React-Native and its associated libs, without which your app wouldn't be scalable (flexible) in a real production environment.

At the end of this program, you'll have developed two Apps, including a more complete one with React Native and Redux, connected to a "Backend as a Service" (BaaS) like Firebase 3.0.

The course will use the [latest stable version of](#) the project (currently React Native 0.74).

Objectives

- Discover and master the specifics of the React Native framework
- Implementing the React Native environment
- Setting up the React Native architecture
- Building a mobile application using best practices
- Install, configure and use ecosystem libraries

Target audience

Developers, Architects

Prerequisites

Basic knowledge of programming and JavaScript. Ideally, you should have taken our [React](#) or [ReactiveX](#) training courses beforehand.

React Native training program

Module 1 - Concepts & Setup & Workflow

Concepts

- Architecture
- Inline CSS / Flexbox
- JSX Specific / Babel / ES6
- Anatomy of a React component
- State
- Quick comparison of existing solutions
- Navigation
- Production deployment

Setup

- The React Native stack
- Npm or Yarn?
- Introduction to

Expo Workflow

- Designing a UI
- Establish component hierarchy (which component is parent to the other, right down to the root)
- React-Native init
- Structuring a simple project (file organization)
- Simulator debugging
- Xcode debugging (on device or simulator)
- Testing with Jest
- Archiving with Xcode for internal deployment via .ipa file
- Deployment with CodePush or AppHub
- Simulator debugging, remote debugging and hot reloading

Module 2 - First App

Build your application using external components

- Introduction to components
- Component State vs Application State
- Functional components vs Class Components
- Use of native components (e.g. Gmaps)

- Integration with external APIs (Google Maps API via AXIOS)

Module 3 - Second App (Redux)

Build your application using functional programming

- Use of Framework UI like NativeBase (major productivity gains)
- What is Redux?
- Solving problems differently with Flux and Redux
 - MVC pattern
 - MVC problem
 - Flow
 - Flux deep dive
 - Redux
 - Redux core concepts
 - Redux with React Native
 - Benefits of using Redux
- State management at application level via Redux
- Form management
- Using the user interface
 - React NavigationFlexbox
 - TouchableHighlight
 - ListView
 - ScrollView
 - Entertainment

Advanced concepts

- Integration with third-party services such as Firebase 3.0 (Google's real-time DB)
- Structuring a complex project (file organization)

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.