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Sign up

Ionic training with Capacitor and VueJS

3 days (21 hours)

Overview

Our training course introduces you to Ionic, a modern framework for creating hybrid mobile applications using web technologies. Combined with Capacitor, it provides fluid access to native functionalities while retaining the speed of web development.

Combined with Vue.js, it offers a robust solution for designing high-performance, ergonomic cross-platform applications compatible with iOS, Android and the web.

Ionic training with Capacitor and Vue.js will enable you to master the complete ecosystem: creating responsive interfaces, integrating native plugins, managing data and publishing to the stores.

You'll learn how to connect your applications to APIs, implement security mechanisms and optimize performance to deliver a fluid, modern experience.

At the end of this course, you'll be able to design and publish a complete hybrid mobile application integrating geolocation, authentication and push notifications.

Like all our training courses, this one is based on the latest stable versions of Ionic Framework, Capacitor and Vue.js.

Objectives

- Understand the Ionic ecosystem, Capacitor and Vue.js.
- Create modern, responsive mobile interfaces.
- Integrate native plugins and external APIs.
- Manage local storage and API synchronization.
- Prepare and publish an app on iOS and Android.
- Automate testing and deployment.

Target audience

- Front-end developers
- Vue.js developers

Prerequisites

- Basic knowledge of JavaScript / Vue.js
- General knowledge of mobile development

Ionic with Capacitor and Vue.js training program

[Day 1 - Morning]

Discovering Ionic and Vue.js

- Understanding Ionic's role in hybrid mobile development
- Presentation of Capacitor and differences with Cordova
- Introduction to Vue.js for mobile
- Installation and configuration of the environment
- Structure of an Ionic + Capacitor project with Vue
- Practical workshop: First Ionic + Vue application.

[Day 1 - Afternoon] Components

and navigation

- Using Ionic UI components
- Managing navigation with Vue Router
- Integrating side menus and tabs
- Responsiveness and Vue components in Ionic
- Themes and CSS customization
- Practical workshop: Multi-page app with themes.

Capacitor and native access

- Discovering Capacitor APIs (Camera, Files, GPS)
- Adding and configuring native plugins
- Interaction between Vue code and native functions
- Managing permissions
- Integrating services (Google Maps, Firebase)
- Practical workshop: Using the camera and geolocation.

[Day 2 - Morning]

Data management and storage

- State management with Pinia (or Vuex)
- Local storage: Storage API and SQLite
- Consuming REST APIs
- Offline mode and persistence
- Structuring hybrid app data
- Practical workshop: Persistent To-Do and API synchro.

[Day 2 - Afternoon] Performance

and optimization

- Lazy loading of views and components
- Bundle reduction (tree-shaking)
- Improving startup time and rendering
- Debugging & profiling (Chrome DevTools, Vue Devtools)
- Android / iOS specific optimizations
- Practical workshop: Audit and targeted optimizations.

Deployment and publication

- Creating Android and iOS builds with Capacitor
- Integration with Android Studio and Xcode
- Certificates, signatures and profiles
- App Store and Google Play publishing
- Updates via Appflow
- Practical workshop: Build "store-ready".

[Day 3 - Morning]

Testing and quality

- Unit testing with Vue Test Utils + Jest
- End-to-end testing (Cypress or Playwright)
- Testing strategies for hybrid mobile
- CI/CD automation
- Quality monitoring: lint & formatting
- Practical workshop: Units + e2e on Vue app + Ionic.

[Day 3 - Afternoon] Advanced

functionalities

- Push Notifications (Capacitor)
- Authentication (OAuth2, Firebase Auth, JWT)
- Payments and third-party APIs
- Firebase integration (Analytics, Crashlytics)
- Creating customized Capacitor plugins
- Practical workshop: Ionic + Vue full authentication.

Industrialization and best practices

- Project organization for teamwork
- CI/CD mobile pipeline (GitHub Actions / GitLab CI)
- Multi-environment (DEV/TEST/PROD) and versioning
- Securing code and secrets
- Maintainability and scalability
- Practical workshop: Continuous deployment of Firebase Hosting.

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced IT 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 forthcoming training course, 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 training: 60% hands-on, 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 is used to check that skills have been correctly acquired.

Certification

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