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Capacitor training

3 days (21 hours)

Presentation

This open-source framework enables modern web applications to be developed as native mobile applications. Our Capacitor training course will help you access native device APIs, while using HTML, CSS and JavaScript web technologies and frameworks (Angular, React, Vue).

During this course, you'll learn how to configure a Capacitor project in an Angular application, integrate plugins, deploy apps on iOS and Android, and access device features (camera, geolocation, storage, etc.) in just a few lines of code.

In addition to the basics, we'll cover third-party plugin integration, native permissions management, and performance optimization to ensure smooth, responsive mobile applications.

With Capacitor, you'll acquire essential skills in hybrid mobile development, as well as a better understanding of native APIs, which will facilitate the creation of cross-platform applications.

As with all our training courses, it will be presented with the [latest resources available](#).

Objectives

- Understanding the basics of Capacitor and its installation
- Design interfaces using a JS framework (Angular), integrating Capacitor to interact with the user and his phone's functionalities
- Add official or community plugins
- Create your own plugin (Android, iOS, Web) and integrate it into your application
- Migrating Cordova projects to Capacitor efficiently
- Deploy and maintain applications on stores

Target audience

Mobile developers.

Prerequisites

- Good knowledge of web development
- Basic knowledge of mobile development
- Management of mobile development environments

OUR CAPACITOR TRAINING PROGRAM

INTRODUCTION TO CAPACITOR

- Introducing Capacitor and its role in multi-platform application development
- Installation of prerequisites and configuration of development environment
- Process for integrating Capacitor into an existing project
- Comparison with other solutions like Cordova/PhoneGap
- Essential resources and documentation to get you started

USER INTERFACE DEVELOPMENT

- Using Capacitor with the Angular Framework to create interfaces
- Installing and configuring useful VS Code extensions
- Best practices in user interface design

DEVELOPMENT WORKFLOW

- Using and managing plugins in a project
- Detailed application configuration
- Debugging and testing in different environments (iOS, Android, Web)

UPDATE AND MIGRATION

- Capacitor application and plugin update strategies
- Migrating applications from Cordova to Capacitor
- Management of deprecated versions and transition to new versions

ADVANCED CONCEPTS AND INTEGRATIONS

- Plugin integration
 - Camera
 - Geolocation
 - Network
- Integration of external services
 - Push notifications via Firebase
 - In-app purchases
 - Deep links

DEPLOYMENT AND MAINTENANCE

- Application deployment process on the various app stores (Apple App Store, Google Play)
- Techniques for updating applications directly without going through the stores
- Post-deployment monitoring and maintenance

SPECIFIC FEATURES BY PLATFORM

- iOS-specific configuration and deployment
 - **Info.plist**
- Android-specific configuration and deployment
 - **AndroidManifest.xml**
- Creating and deploying Progressive Web Apps (PWAs) with Capacitor

API REFERENCE

- Capacitor API details for iOS, Android and Web
- Practical use of APIs in real-life projects
- Code examples and integration best practices

Companies concerned

This 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.