



MFE-IT

Reference: OF/EN/F3

Flutter 3 Training Course

Developing High-Performance Cross-Platform Applications with
Dart

Duration: 4 Days | Hours: 28 h

Remote · Sessions guaranteed from 1 registrant · 60% hands-on practice

DESCRIPTION

Flutter is Google's open-source cross-platform framework that allows you to create high-performance, fluid interfaces for Android, iOS, desktop and the web, all from a single source code written in Dart. Version 3 of Flutter paves the way for natively compiled applications, rendered at 60+ FPS, with a modern look and an optimised user experience.

This Flutter 3 training course guides you through the complete creation of a mobile application while exploring the fundamentals of Flutter: widgets, navigation, state management, API calls, animations and deployment.

LEARNING OBJECTIVES

By the end of this training course, participants will be able to:

- Understand Flutter's architecture and philosophy
- Manipulate widgets and build responsive interfaces
- Manage navigation between screens with Navigator 2.0
- Manage state with setState, Provider or Riverpod
- Integrate remote services via REST APIs
- Compile and deploy a cross-platform application

PREREQUISITES

- Good foundation in object-oriented programming
- Knowledge of JavaScript, Java, Swift or Dart desirable (even at beginner level)
- Flutter SDK environment installed (guided preparation at the start of the training)

Because each participant is unique, a personalised interview is systematically organised in advance with our expert to design a training programme perfectly aligned with their objectives, level and professional challenges.

TARGET AUDIENCE

Mobile, web and full-stack developers wishing to build high-performance cross-platform applications.

DETAILED PROGRAMME

The training alternates between theoretical input and hands-on practice (approximately 60% of the time). Modules are built around practical exercises based on real-world business use cases.

Module 1 – Introduction to Flutter and Dart

- Introduction to Flutter and the Dart language
- Installation and tools (Android Studio, VS Code)
- First lines in Dart and project structure

Module 2 – Basic Widgets and Layout

- Text, Row, Column, Container, ListView
- Scaffold, AppBar and SafeArea
- Widget tree management and composition

Module 3 – Navigation and Routing

- Navigator and named routes
- Data transfer between screens
- Nested navigation and back stack management

Module 4 – State Management

- setState and InheritedWidget basics
- Introduction to Provider and Riverpod
- Business logic separation and reactive UI

Module 5 – API Calls and Network Management

- http package and JSON parsing
- Conditional display and loading states
- Error handling and offline strategies

Module 6 – Design, Animations and Responsive UI

- Custom themes: Material vs Cupertino
- Simple animations and AnimatedBuilder
- Responsive layouts for mobile and tablet

Module 7 – Deployment, Debugging and Firebase

- Debugging, profiling and DevTools
- Building for Android, iOS and web
- Introduction to Firebase as a lightweight backend

Module 8 – Final Project

- Mobile app with multiple screens and navigation
- API integration, state logic and responsive design
- Production build and publication preparation

TEACHING METHODS

Format and Delivery

The training is delivered remotely via an interactive virtual classroom. It can also be delivered on-site, with content customised to match the needs of your professional project. The theory/practice split is approximately 40%/60%.

MFE-IT Ultra-Personalised Format

Each session accommodates between 1 and 3 participants, ensuring highly individualised support. A preliminary interview allows us to tailor the content to each participant's profile. Inter-company sessions are guaranteed from just 1 registrant (except in cases of force majeure).

Skills Assessment

Throughout the training, the trainer assesses participant progress through multiple-choice questions, role-playing exercises and hands-on work. At the end, a certificate of achievement is issued to each participant.

Post-Training Support

For one month following the training, each participant can contact MFE-IT trainers with questions about implementing acquired knowledge. A response is provided by email or telephone within 48 working hours.

Accessibility

MFE-IT is committed to welcoming people with disabilities. Contact: contact@mfe-it.com.

PRACTICAL INFORMATION

Trainer Resources

- Structured demonstrations aligned with the detailed programme
- Exercise briefs and solutions throughout the training
- A ready-to-use technical environment for practical workshops
- Trainer validation of acquired knowledge at the end of each workshop
- Digital reference documents

Certification and Validation

At the end of the training, a certificate is sent by email specifying the objectives, nature, duration and assessment results. A completion certificate can also be provided on request.

Benefits for Participants

- Train from your workplace or home, with no travel required
- Benefit from an expert trainer-consultant on the subject
- Enjoy an ultra-personalised format (1 to 3 participants)
- Continue training even in the event of unforeseen circumstances

Benefits for the Organisation

- Optimise the training budget by reducing travel and accommodation costs
- Offer quality training to all employees, regardless of location
- Reduce absence time linked to travel
- Support team upskilling in all contexts