

# Course : Flutter, developing cross-platform mobile applications

*Practical course - 3d - 21h00 - Ref. LJC*

*Price : 1650 € E.T.*

NEW

On completion of the course, participants will be able to create cross-platform mobile applications using Flutter. This training program is intended for employees of professional branches covered by the OPCO Atlas.

## Teaching objectives

**At the end of the training, the participant will be able to:**

- ✓ Knowledge of mobile development frameworks and Flutter's specific features
- ✓ Setting up a Flutter development environment
- ✓ Design the software architecture of a multiplatform mobile application
- ✓ Building a responsive interface
- ✓ Developing with Dart

## Intended audience

For OPCO Atlas members: developers, project managers.

## Prerequisites

Basic programming skills.

## Practical details

### Teaching methods

To optimize the learning experience, e-learning modules can be provided before and after the classroom session or virtual class, at the participant's request.

## Course schedule

### PARTICIPANTS

For OPCO Atlas members:  
developers, project managers.

### PREREQUISITES

Basic programming skills.

### TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

### ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.  
Participants also complete a placement test before and after the course to measure the skills they've developed.

### TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

## 1 Algorithmics - Think before you design - Digital learning pre-training

### content

- Introduction to algorithms.
- Basic instructions in pseudo-code.

### Digital activities

This online course teaches you how to think before you design a program, by introducing you to the basics of algorithmics. In particular, participants will study the fundamental instructions in pseudo-code.

## 2 Getting started with Flutter

- Flutter/Dart presentation.
- Installation on macOS/Windows.
- Use of the editor recommended.
- Debugging and versioning (FVM).
- Discover widgets.

### Hands-on work

Direct practical application: installation, first project.

## 3 The Dart language

- Syntax, types, conditions, loops, functions.
- POO, null-safety, generics, mixins, async.

### Hands-on work

Interactive quiz (Mentimeter). Microprojects on simple data structures. Pooling and feedback.

## 4 Responsive interface

- Pubspec.yaml, build() method, widgets (Column, Row, etc.).
- MediaQuery, MaterialApp.

### Hands-on work

Creating a responsive mini-UI. Pause feedback : "My favorite widget".

## 5 Status management

- Stateless versus Stateful widgets.
- Lifecycle, TextField, Provider, Consumer.

### Hands-on work

Guided demo + TP: managing a form. Memory map of Provider component roles.

## 6 Navigation

- Navigator, data passage, tabs, side drawers.

### Hands-on work

Navigation challenges: create an app with 3 connected views. Formative assessment: oral presentation of the structure.

### TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

### ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

## 7 Entertainment

- Hero, transitions, custom animations.

### Hands-on work

Guided practice : Hero animation between 2 views. Word cloud : "What animation changes for the UX".

## 8 Cross-platform development

- Web, mobile, push notifications, third-party packages.

### Hands-on work

Case study: create an adaptive app (demo). Group analysis of native constraints.

## 9 Calling an API, manipulating JSON

- async/await, Futures, HTTP, error handling.

### Hands-on work

Weather API call, conditional display. Analysis of code with bugs : Dart Detective".

## 10 Implementing Firebase Auth & Firestore

- Auth, Firestore, Streams, messaging app.

### Hands-on work

Guided practice session: messaging with auth Firebase. Visual recap via collective mind map.

## 11 UX design and interface ergonomics - Post-training digital learning

### content

- What is UX design?
- Information architecture.

### Digital activities

This online training course introduces the fundamentals of UX design and teaches how to design effective user experiences. Participants will understand the principles of ergonomics, the approach and the benefits of user-centered design. They will then learn how to analyze user needs: conduct interviews and observations, create personas, map user paths and define challenges. Practical exercises will guide them in identifying problems and selecting the best solutions.

## Dates and locations

### REMOTE CLASS

2026 : 17 Mar., 26 May, 13 Oct., 15 Dec.

### PARIS LA DÉFENSE

2026 : 10 Mar., 19 May, 6 Oct., 8 Dec.

### LILLE

2026 : 17 Mar., 26 May, 13 Oct., 15 Dec.