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# Compose Multiplatform training

2 days (14 hours)

## Presentation

Our Compose Multiplatform training course will enable you to create modern, responsive user interfaces capable of launching on a large number of different media from a single codebase. Created by JetBrains, Compose Multiplatform lets you create applications that run on Android, iOS, desktop and web with a single [Kotlin](#) codebase.

This program will introduce you to Compose Multiplatform, its advantages and syntax. A comparison with Kotlin Multiplatform (KMP) will also be covered. The course will start with the generation of an initial project and the configuration of the project structure.

Our training covers the fundamentals of development, with dependency management, responsive UI design for various platforms, as well as building user interfaces with the creation of dynamic UI components and the use of animation.

Like all our training courses, it will be run on the latest version of the tool: [Compose Multiplatform v1.6](#).

## Objectives

- Creating dynamic user interfaces
- Integrate your own data
- Test and deploy interfaces

## Target audience

- **Mobile developers**
- Web developers

## Prerequisites

Knowledge of Kotlin.

# MULTIPLATFORM TRAINING PROGRAM

## INTRODUCTION TO COMPOSE MULTIPLATFORM

- Compose Multiplatform: Overview and benefits
- KMP vs Compose Multiplatform
- Choosing the right IDE
- Preparing the development environment
- Generate an initial project template and install the necessary tools
- Typical project structure and initial configuration

## DEVELOPMENT WITH MULTIPLATFORM COMPOSITES

- Adding and managing dependencies in a Compose Multiplatform project
- Designing responsive user interfaces with Compose for different platforms
- Implementing inter-screen navigation with libraries such as Voyager
- Theme creation and management: Choice of colors, fonts and styles
- Model and process API responses

## USER INTERFACE DESIGN

- Create dynamic, responsive user interface components
- Using animations to enhance the user experience
- Adaptive layout techniques for mobile, desktop and the web
- Advanced customization with Material Design and integration of third-party components
- State and data management with MVVM architecture

## DATA MANAGEMENT AND INTEGRATION

- Implementing data persistence with SQL and other databases
- Sending GET requests and managing responses to integrate web services
- Create and use a local cache to optimize performance
- Platform-specific exception and error handling
- Dependency injection with Koin for improved modularity and testability

## DEBUGGING, TESTING AND DEPLOYMENT

- Strategies and tools for debugging applications
- Writing unit and integration tests to ensure application quality
- Management of different deployment environments (development, test, production)

- Deployment automation and continuous integration with GitOps
- Monitoring and optimizing application performance in production

## BEST PRACTICES

- Application of recommended architecture models for maintainable, scalable code
- Advanced use of animations and multi-touch interactions
- Interface and functionality adapted to the target platform

## 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.