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# **Jetpack Compose training**

2 days (14 hours)

#### Presentation

Jetpack Compose training will simplify the creation of your mobile applications. This tool facilitates and accelerates the user interface development process for Android.

In this course, you'll learn how to combine composable functions, one of the main building blocks of Jetpack Compose. Thanks to this training, you'll be able to develop your applications with less code and less re-reading.

You'll be able to use Jetpack Compose's declarative application programming interface, which consists in describing its user interface so that the rest is handled by the application.

This Jetpack Compose training course will teach you how to create a native Android user interface using this modern toolbox, making the process simple. Get up to speed quickly on app building.

The course will be presented with the latest stable version of Jetpack Compose, version 1.7.

## Objectives

- Understand the fundamentals and essential techniques of Jetpack Compose
- Master the creation and modification of user interfaces with Compose UI
- Understand the principles of managing reports, side effects and executing effects
- Know how to create animations, design rich interfaces and write automated tests for composables

# Target audience

- Developers
- Mobile developers

# **Prerequisites**

- Experience in Android development is recommended, but not mandatory
- Test My Knowledge

# Software requirements

Android Studio in latest stable version.

# **Jetpack Compose Training Program**

#### The basics of Jetpack Compose

- What is Jetpack Compose?
- Creating Jetpack Compose
- Biases
- Essential techniques
- How does the library break down?

### Compose UI basics

- Basic concepts
  - Themes
  - Texts
  - Buttons
  - Images
  - Forms
  - Page layout
  - Modifying / decorating a component
- Reusable components

### Status and effects management

- The notion of state
- Unit component
- Edge effects
- The means to achieve these edge effects

#### Rich lists and interfaces

- Dynamic list
- Structured layouts
  - Pattern
  - Style Material Design
- Slot API Pattern design principle
- Applying the pattern to design

#### Entertainment

- Discovering and using the API
- Custom animations

#### **Tests**

- Diving into test APIs
- Compose
  - Testing an interface
- Writing automated tests for composables

# 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 with regard to 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, brainstorming sessions and group work.

### Validation

At the end of the session, a multiple-choice questionnaire is used to check correct acquisition.

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

skills.