Course : Android Jetpack Compose, build a mobile application

Practical course - 2d - 14h00 - Ref. JPK
Price : 1280 € E.T.

Jetpack Compose is a modern toolbox for creating a native Android user interface. It simplifies and accelerates UI development on Android with intuitive Kotlin APIs. You'll learn how to use Jetpack Compose and manage complex interfaces and applications.

Teaching objectives

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

- ✓ Using Jetpack Compose's graphical interface
- ✓ Create and compose a complex interface
- ✓ Implementing effects and animations in Jetpack Compose
- ✓ Using application constraints
- ✓ Divide the interface into reusable components

Intended audience
Experienced Android and non-Android mobile developers. Anyone interested in building mobile applications.

Prerequisites
Some knowledge of mobile application development.

Course schedule

1 A reminder of the Android Studio project

- How do I start a traditional project in Android Studio?
- Study the main elements of the application. Activities, services, broadcastreceiver, applications...
- Traditional GUI construction with XML layouts. Advantages and disadvantages.

Hands-on work
Take charge of an existing project and examine weak points.

PARTICIPANTS
Experienced Android and non-Android mobile developers. Anyone interested in building mobile applications.

PREREQUISITES
Some knowledge of mobile application development.

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.

2 Using Jetpack Compose

- Android GUI development. New way to practice.
- Fundamental components. Basic composable functions: Text, TextField, Button, Progess Bar, AlertDialog...
- Assembling groups. Layouts: LinearLayout, Boxes, Scaffold...
- Create lists. Alternative to RecyclerView. Horizontal and vertical scolling. Lists and grids.

Hands-on work
Create your first Jetpack Compose application, using the initial project (2 screens) as an example.

3 Managing complex interfaces

- Compose an interface. Reusing components. Composing the interface, adding advanced elements.
- Use modifiers to apply styles. Link modifiers. Add font and background colors.
- Manage reports. Define stateless, Compose, ViewModel and LiveData composables. Use the Bar application.
- Apply Material Design. Manage events. Manage themes.

Hands-on work
Enhance the existing application by adding additional screens.

4 Managing complex applications

- Use ConstraintLayout constraints. Attach elements to their neighbors or parents. Create an AppDrawer.
- Divide the interface into reusable components.
- Use effects. React at specific points in the life cycle.
- Using animations in Jetpack Compose. Animating properties, animating buttons or animating toast.

Hands-on work
Implement drawer navigation by refactoring the interface.