

# Android Application Development & Programming

Course: **00028**

Filter: **Beginner**

Duration: **3 days**

Category:: **Programming**

Price: **3000,00 €**

## About Course

Expand your mobile app reach through this Android development and programming training course. Android's open source platform offers compatibility with a wide range of devices, which provide global access to the mobile market. Revolutionize your organization by delivering robust business applications for Android phones and tablets and integrate them with enterprise systems.

## What you'll learn

- Deliver robust mobile business applications and integrate them with enterprise systems
- Create intuitive, reliable software using activities, services, and intents
- Design UIs that work seamlessly with a range of phones and tablets
- Integrate applications with enterprise web and location-based services

## Pre-requisites

- One year of practical, hands-on experience with Java is recommended
- Extensive experience with C# is acceptable in the absence of Java
- Java experience at the level of Java Programming Introduction

## Curriculum

## **Module 1: Introducing the Android Platform**

- Establishing the development environment
- Analyzing components of the architecture

## **Module 2: Building mobile applications**

- Creating activities to process user input
- Implementing views to build the User Interface (UI)
- Packaging applications for deployment
- Developing unit tests
- Performing background tasks with services
- Communicating with intents

## **Module 3: Creating User Interfaces**

- Building the layout
- Connecting a view to an activity
- Positioning form elements
- Declaring component definitions and layouts
- Handling multiple screen resolutions
- Localizing applications

## **Module 4: Processing User Input**

- Creating and displaying Toast
- Generating status bar notifications
- Logging key application events
- Responding to user input events
- Launching activities with intents
- Writing Java event handlers
- Generating context and option menus
- Integrating with the Android system
- Persisting data in response to notifications

## **Module 5: Persisting Application Data**

- Contrasting internal and external storage locations
- Saving application configuration with SharedPreferences
- Executing queries to locate information
- Specifying column selections with projections
- Accessing shared data resources
- Addressing content providers with URIs

## **Module 6: Maintaining System Responsiveness**

- Unloading the UI thread
- Designing for asynchronous execution
- Launching IntentServices
- Declaring services in the manifest

## **Module 7: Exchanging Data over the Internet**

- Synchronizing Android devices with servers
- Communicating via HTTP clients
- Connecting to RESTful services
- Creating and parsing JSON

## **Module 8: Enhancing the User Experience**

- Manipulating objects with drag and drop
- Supporting orientation and multiple screen resolutions with resources
- Combining fragments into a multi-pane UI
- Plotting positions on Google Maps
- Establishing location through GPS, Cell-ID and WiFi