# Android programming (code: ANDROID-101)

## Overview

Training participants will learn how to create applications for Android phones (which will work on tablets and other Android devices without problems). The training materials covers not only purely technical matters, like useful tools and necessary libraries, but also delivers well-tested programming and design habits which make Android programs lean, fast and highly usable.

## Duration

2 days

## Agenda

1. Necessary information about Android programming environment, compatibility issues between versions (API levels) and deploying/publishing of applications.
2. Development kit configuration (device emulator and an actual device).
3. The structure of an android application:
   — Activities, Intents, Services;
   — Content Provider;
   — Broadcast Receiver;
   — application context;
   — data: where and how to store which data;
4. Creating UI:
   — object-oriented GUI architecture: View, Group, Layout, Widget;
   — Dynamic GUI rendering;
   — GUI as a static resource;
   — events and event handling;
   — options and context menu;
5. Resources:
   — adding resource to an application;
   — drawable resources: density and resolution, scaling;
6. Data handling
   — web services and HTTP;
   — parsing well-structured text, text-parsing API (for XML, JSON);
   — adapters (Adapter, AdapterView), GUI binding to data;
7. Dynamic graphics - canvas:
   — SurfaceView, SurfaceHolder;
   — graphics, animations and multithreading.
8. Using phone capabilities:
   — sound;
   — permissions, manifest;
   — accelerometer;
   — accessing local files.

## Target audience and prerequisites

The training is designed for programmers who already know Java. For those who do not, we offer a prep course in Java, J-PRE-ANDROID, or, alternatively, the complete Java Programmer course - those who prefer to learn Java on their own can use the newest edition of Bruce Eckel's book *Thinking in Java*.

## Certificates

Course participants receive completion certificates signed by ALX.

## Locations

— Online (English) – your home, office or wherever you want
— Warsaw (English) – Jasna 14/16A
— any other location (London, UK, EU) on request

## Price

740 EUR

The price includes:

— course materials,
— snacks, coffee, tea and soft drinks,
— course completion certificate,
— one-time consultation with the instructor after course completion.