Android - Application Development II

Course code: ANDROID2

The course is intended for all developers who want to learn advanced methods of developing applications on the Android platform, such as working in the background and communicating with remote web services. You will also try working with sensors, device location and Google Maps. To work with Google Maps, it is advisable to use your own Android device (it is not a requirement).

Affiliate	Duration	Course price	ITB	
Praha	2	9 000 Kč	20	
Brno	2	9 000 Kč	20	
Bratislava	2	400 €	20	

The prices are without VAT.

Course terms

Date	Dura	tion Course price	Туре	Course language	Location
10.02.2025	2	8 100 Kč	Presence	CZ/SK	Gopas Praha Prezenční
13.03.2025	2	400 €	Presence	CZ/SK	Gopas Bratislava Prezenční
16.04.2025	2	9 000 Kč	Presence	CZ/SK	Gopas Brno Prezenční
19.05.2025	2	9 000 Kč	Presence	CZ/SK	Gopas Praha Prezenční
12.06.2025	2	400 €	Online	CZ/SK	Gopas Bratislava Online
12.06.2025	2	9 000 Kč	Online	CZ/SK	Gopas Praha Online

The prices are without VAT.

What we will teach you

- Work with background data and UI
- Network communication in android
- Integration with web services and applications (Google maps, Push notifications, Firebase Console)
- Advanced work with hardware in the device (sensors, modern location services FusedLocationAPI)
- Services, AIDL
- Broadcasts, Alarms, Widgets

Required entry skills

- The course assumes knowledge and experience with programming in Kotlin at the level of the course [KOTLIN1]
- The course assumes knowledge and experience with programming on the Android platform at the level of the course [ANDROID1]

Teaching methods

- Expert interpretation with practical examples, exercises on computers. The course is led by a lecturer with developer experience

Studying materials

- Presentation of the material discussed in printed or online form

Syllabus

Working with background data and UI

- Main Thread, Handler and Looper
- Threads and AsyncTask, TimerTask

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Working with the network

- TCP/IP, HTTP
- Web services Google Cloud Messaging and push notifications
- XML and JSON parsing and creation

Google Maps

- SDK settings
- API registration, use

Locations and sensors

- Device location via GPS and network
- Fused location API versus LocationManager
- Reading data from sensors and law

WebView component

- Using, calling methods on Java objects via JavaScript

Services

- started and bounded services
- IntentService and its usage
- Binding services and AIDL

Broadcast receivers

- Creation of a broadcast receiver and its use

Alarms

- Use of alarm
- Reset the alarm when the device starts
- setting the exact repeat alarm in the new SDKs

Notification

- Pending Intent
- Creating a notification in the system bar

Optional topics

- Desktop widgets
- Publication of applications, Google Play
- Audio and video

Something extra

- Parcelable vs. Serializable
- 9-patch, image caching
- Sparce array



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