

Android Fundamentals

Audience Android Fundamentals Course

The course Android Fundamentals is intended for developers, managers and others who want to get an overview of the capabilities and operation of the Android platform.

Prerequisites Course Android Fundamentals

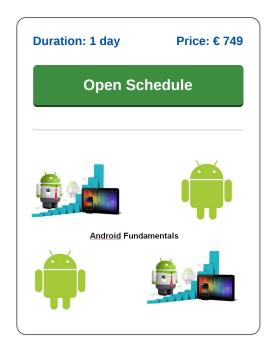
To participate in the course Android Fundamentals knowledge of the basics of Java programming is required.

Realization Training Android Fundamentals

The theory is discussed on the basis of presentation slides. Demos are used to clarify the concepts. The theory is interspersed with practical exercises. The course material is in English.

Certification Android Fundamentals

After successful completion of the course participants receive an official certificate Android Fundamentals.



Content Course Android Fundamentals

In the course Android Fundamentals participants learn the basic concepts of the Android platform and how to develop mobile apps for Android. The Android Studio Development Environment is used for the development of Android apps and many features of this IDE are discussed.

Android Intro

The Android Fundamentals course starts with an overview of the architecture of the Android platform and the functionalities in the Android SDK. Activities and the life cycle of Android apps are covered here.

Android GUI

Next the User Interface of Android apps is discussed. This includes the View Hierarchy, the Layout Containers and the various views and controls in Android. The different device emulators in Android Studio are also treated.

Android Persistence

Furthermore accessing databases and the file system is part of the program of the course Android Fundamentals. Attention is also paid to content providers that provide access to a central data repository.

Threads and Services

The use of threads and the asynchronous execution of tasks is covered. And the use of services such as location services and HTTP services is discussed as well.

Best Practices

Finally participants learn some best practices in Android Development and how to publish an app on Google Play. With the knowledge gained in this course, participants are able to write simple apps themselves and understand the architecture and operation of the Android platform.



Modules Course Android Fundamentals

Module 1 : Android Intro	Module 2 : Android Development	Module 3 : Android GUI
What is Android?	Unit Testing and Debugging	Android User Interface
Architecture Explained	Creating Unit Tests	View Hierarchy
Role of Java	Android Development Tools (ADT)	Menus
Android SDK	Android Studio	Applying Styles to UI
Eclipse IDE Plugin	Using the Emulator	Layout Containers
Device Emulator	TraceView	ScrollView, ViewPager, TabView
Profiling Tools	Analyzing the Heap	Custom Views
Module 4 : Android Persistence	Module 5 : Android Threads	Module 6 : Android Services
Storing and Retrieving Data	Asynchronous Tasks	Accessing Remote Services
Internal and External Storage	Main UI Thread	HTTP Access
Preferences	Using AsyncTask	DOM Parsing
SQLite Database	Location Services and Maps	JSON Parsing
Content Providers	Location Services	Alarm Manager
Querying Content Providers	Mock Location Data	Broadcast Receivers
Modifying Data	Google Map Libraries	Services
Creating a Content Provider	Handling Events	Notification Manager
Module 7 : Best Practices		
Web Apps Overview		
Targeting Screens from Web Apps		
WebView		
Debugging Web Apps		
Best Practices for Web Apps		
Compatibility		
Supporting multiple screens		
Optimizing for Other Android Versions		