

Android Programming Essentials

Course Outline

The Android Programming Essential course is designed to enable you quickly to build Android application by teaching you the essential of Android platform and application lifecycle. You will build simple GUI Applications, use built-in widgets and components, work with database and file I/O.

Prerequisites:

Prior experience with Java

Platform:

Android 4.0+

Duration:

40 hours

Course outline:

Getting started: the basics

- Android architectural overview
- Standard development environment for Android applications
- Alternative approaches
- Challenges of the mobile platform
- Putting it all together

Anatomy of an Android Application

- Creating a new Android Application
- The Android project structure
- Activities
- User interface – the basics

Android support within Eclipse

- The Android perspective
- Emulator
- Delvik Debug Monitoring Service

User Interfaces – a closer look

- Simple Toasts
- Standard view layouts:
- Basic widgets:
- Formatting: Dips and SPS
- Context menu and alert text
- General UI strategies for mobile devices

Persistent storage in Android

- Database support
- File I/O

- Serialization
- Preferences

Activity LifeCycle

- Programming in the mobile environment
- Activity lifecycle phases
- Example application

Testing on Real Devices

- Deploying an Android application on physical device
- Example illustration