Android Syllabus SourceKode Training Institute

www.sourcekode.in

DETAILS

Android application development is a trending course at SourceKode.

Presently, due to the boom in mobile sales and the fact that Government of India is encouraging Start-ups, quite a few openings have spurred up around android technology.

Android training course at SourceKode institute is a highly intense and completely engaging course where students are taught how to use Android Studio.

The android course at SourceKode Institute is developed using western holistic training approach. Students of android training have to work on multiple projects thereby enhancing their understanding of android programming.

Students of android training are also offered android internship in companies through SourceKode training institute, Pune. This has helped students procure android placement packages of up to 7.2 lacs per annum from SourceKode, Pune.

SourceKode Institute

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Coding Standard
- Coding standard and its importance
- Java coding standard
- Android coding standard
- Unit level Testing

Introduction To Mobile Apps
- Why we Need Mobile Apps
- Different Kinds of Mobile Apps
- Briefly about Android

Introduction Android
- History Behind Android Development
- What is Android?
- Pre-requisites to learn Android
- Brief Discussion on Java Programming

Android Architecture
- Overview of Android Stack
- Android Features
- Introduction to OS layers

Deep Overview in Android Stack
- Linux Kernel
- Libraries
- Android Runtime
- Application Framework
- Dalvik VM

Installing Android Machine
- Configuring Android Stack
- Setting up Android Studio
- Working with Android Studio
- Using Older Android Tools

Creating Android Application
- Creating Android Project
- Debugging Application through DDMS
- Setting up environment
- AVD Creation
- Executing Project on Android Screen

Android Components
- Activities
- Services
- Broadcast Receivers
- Content Providers

Hello World App
- Creating your first project
- The manifest file
- Layout resource
- Running your app on Emulator

Building UI with Activities
- Activities Views, layouts and Common UI components
- Creating UI through code and XML
- Activity lifecycle
- Intents
- Communicating data among Activities

Advanced UI
- Selection components (GridView, ListView, Spinner)
- Adapters, Custom Adapters
- Complex UI components
- Building UI for performance
- Menus
- Creating custom and compound Views

Notifications
- Toast, Custom Toast
- Dialogs
- Status bar Notifications

Multithreading
- Using Java Multithreading classes
- AsyncTask
- Handler
- Post

Styles And Themes

- Creating and Applying simple Style
- Inheriting built-in Style and User defined style
- Using Styles as themes

- Resources and Assets
- Android Resource
- Using resources in XML and code
- Localization
- Handling Runtime configuration changes

Intent, Intent Filters and Broadcast Receivers

- Role of filters
- Intent-matching rules
- Filters in your manifest
- Filters in dynamic Broadcast Receivers
- Creating Broadcast receiver
- Receiving System Broadcast
- Understanding Broadcast action, category and data
- Registering Broadcast receiver through code and through XML
- Sending Broadcast

Data Storage

- Shared Preferences
- Android File System
- Internal storage
- External storage
- SQLite
    a. Introducing SQLite
    b. SQLiteOpenHelper and creating a database
    c. Opening and closing a database
    d. Working with cursors Inserts, updates, and deletes
- Network

Content Providers

- Accessing built in content providers
- Content provider MIME types
- Searching for content
- Adding, changing, and removing content
- Creating content provider
- Working with content files

Services
- Overview of services in Android
- Implementing a Service
- Service lifecycle
- Inter Process Communication (AIDL Services)

Multimedia in Android
- Multimedia Supported audio formats
- Simple media playback
- Supported video formats
- Simple video playback

Location Based Services and Google Maps
- Using Location Based Services
- Finding current location and listening for changes in location
- Proximity alerts
- Working with Google Maps
- Showing google map in an Activity
- Map Overlays
- Itemized overlays
- Geocoder
- Displaying route on map

Web Services and WebView
- Consuming web services
- Receiving HTTP Response (XML, JSON)
- Parsing JSON and XML
- Using WebView

Sensors
- How Sensors work
- Using Orientation and Accelerometer sensors
- Best practices for performance

WiFi
- Monitoring and managing Internet connectivity
- Managing active connections
- Managing WiFi networks

Telephony Services

- Making calls
- Monitoring data connectivity and activity
- Accessing phone properties and status
- Controlling the phone
- Sending messages

Camera

- Taking pictures
- Media Recorder
- Rendering previews

Bluetooth

- Controlling local Bluetooth device
- Discovering and bonding with Bluetooth devices
- Managing Bluetooth connections
- Communicating with Bluetooth

More

- Fragments
- Material Design
- Gradle

Syllabus Updates : Since each new version of Android has new features, we keep adding upgrading our syllabus every 6 months to accommodate for advancement. You can request any Android Topic.

Expert Course Content

- Material Design
- Firebase Introduction
- Runtime Permissions & Security
- Memory Profiling
- Android Application Deployment
- Web Services and WebView
- Google volley
- Receiving http response
- Various Image Loading
- JSON Parsing

Deployment of App Play Store

- Creating and deployment
- Analysing app
- Android Market/App Store
- Securing Android app

Other Technology

- Git
- Vector Image
- Minimizing Size of apk
- Multiple Screen Support