

## Android Application Development Course

The Android Application Development course is primarily designed for beginners and experienced programmers who want to learn how to create applications in Android. The step-by-step lessons at Geosys starts from Java Essentials for Android and cover all that you need to develop professional Android Apps. There are chapter wise quizzes and coding assignments after each unit to help and reinforce your understanding.

## Pre-requisites

1. Any person with passion and who wants a career in Android can opt for Android-ADC Course.
2. A fresher, who is looking to make his career in Android Development.
3. An Experienced Professional who wishes to switch over to Android Development.
4. Any Professional who wishes to improve his/her skills.
5. All those students and professionals who are keen to create amazing Apps in Android should go for this course.
6. Anyone who wants to learn Android should have core java knowledge along with an analytical blend of mind and logic reasoning.

## Who should attend this course?

1. Any Graduate with Good grasping skills.
2. Good Communication & Presentation Skills.
3. 2012, 2013 & 2014 Pass Outs are Preferred.
4. Self-Starter, Problem Solver, Strong Analytical Skills.

## What will be achieved?

After the completion of the Android Development Course at Geosys, you should be able to understand:

1. Basic Android Development tools such as Eclipse, DDMS, Drawables, Listeners, and so on.
2. How to use various Layouts and Widgets in Android Applications.
3. How to create interactive applications in android with multiple activities including audio, video and notifications.
4. How to create applications using SQLite database.
5. How to publish your App on Google Play.
6. Use development tools, such as those found in the Android Developer's Toolkit to efficiently create, understand, debug and optimize Android applications.
7. Understand the key forces and constraints acting on handheld devices and know how to accommodate these when designing and building their own Android applications.
8. Know where to find additional sources of information to understand and solve Android-related problems.
9. Understand the Android platform's organization, patterns and programming mechanisms and be able to use them effectively to develop their own Android applications.

## Why choose this course?

If your interest goes beyond existing academic education and you want to know more about the latest technology which can boost your career then this programme is for you.



## Course Duration

1 Month

## Key Features

Geosys believes in offering integrated career orientation, continuous support rendering model and constant IT service portfolio.

1. Specially Designed Course Material
2. Tailor-made Course Curriculum
3. Domain Experts as Faculty
4. State-of-the-art Infrastructure
5. Industry Experts as Trainers
6. Affordable Fee Structure
7. Industry-centric Approach
8. World-class Teaching Methodology

## Complete curriculum

1. Introduction to Android  
In this Session students will come to know about android platform, android architecture, and Open Handset Alliance.
2. Concepts on Core Java (Part 1)  
In this Session students will come to know about Classes and Object. How methods are used in coding. They will come to know about the principles and coding standards on which android programming rely.
3. Concepts on Core Java(Part 2)  
This Session explains about core concepts of java programming, how to initialize variable of class, difference b/w overloading and overriding, String manipulation and exception handling.
4. Android Stack  
This Session explains the in-depth knowledge of Android Stack. Explanation about the layer exists between hardware and software and drivers that runs device hardware. It also explains about the core libraries on which android works.
5. Android SDK (Part 1)  
This Session explains about Android development kit and how to install and use it for android app development. ADT includes Android SDK and IDE. Students will get an idea about life cycle of Android application and Activities.
6. Android SDK (Part 2) and Android Installation and First Project  
In this Session student will get the knowledge of the four main backbone of android these are Activities and intents, services which runs in background , broadcast receivers which listens system wide broadcast announcements and the content providers which maintain all the contents of the device.

## 7. Creating Users Interfaces

In this Session students will come to know about the various types of Views and layouts which are essential for User Interface development. They will come to know how nesting of layouts are done for a beautiful layout. Students will come to know about notifications and how to design layouts using XML.

## 8. Advanced User Interfaces (Part 1)

This Session explains about the types of adapters and why they are used in android app development. Students will come to know about customizing user interface , how to use drawable resources in application and the common UI elements like button, list view, scrollbar etc.

## 9. Advanced User Interface (Part 2) and Services & Receivers

In this Session students will come to know about how to create UI for different screen size and densities. Students will get detailed knowledge about creation of menus, dialogs and user interface components. They will come to know about Services in details and their life cycle and how to implement them.

## 10. Data Storage and File System

This Session explains about data storage and file system of android, how and where to store data and how to fetch them, use of shared preference and how to share data among applications and how to store data in internal storage of device.

## 11. Filters and SQLite

In this Session students will come to know about intent filters and how to use them. They will come to know about SQLite database to store data and to do -CRUD operations in the SQLite database.

## 12. Content Providers

In this Session students will come to know about cursors and their usage in SQLite database, how to share a common set of data among various applications using content providers. They will get an in-depth knowledge of how to use and handle content providers for efficient app development.

## 13. Custom Content Providers

This Session explains about implementation of different API supporting files and libraries in own project, content providers mime types and mime settings.

## 14. Telephony and SMS

In this Session students will come to know about how to get details about incoming call or SMS using receivers, how to read SIM card details, tracking location of cell phone and various details regarding use of services and broadcast receivers in context of telephony and SMS.

## 15. Location Based Services and Maps

In this Session students will be trained on how to work on inbuilt GPS device and get current co-ordinates and showing in map. They will get knowledge regarding Geocoding and reverse Geocoding, how to fetch and work on Google Maps API V2.

## 16. Web Services and Network Connectivity (Part 1)

In this Session students will come to know about how to integrate web services with application, how to interact with server based application using SOAP based protocols,

managing network connectivity and how to work with various inbuilt sensors of the device.

## 17. Web Services and Network Connectivity(Part 2)

This Session explains about monitoring and managing internet connectivity using various data transfers mode using Wi-Fi or mobile data, students will also be trained on how to connect two devices using Bluetooth and transferring files b/w two devices.

## 18. Web Services and Network Connectivity (Part 3)

In this Session students will understand and integrate inbuilt libraries of Google and how to use them in androidapp, they will be trained on a sample application of fetching nearby places on Google map using Geocoding, reverse geocoding and web services.

## 19. Multimedia (part 1)

In this Session students will be trained on media related application on android. They will get knowledge how audio and video files of different formats are being converted into formats which android supports.

## 20. Multimedia (part 2)

This Session explains about various media and video formats and how to read various media files in android and to make an audio and video playback application.

## 21. Graphics Programming (Part 1)

This Session gives a detailed description about the inbuilt graphics library present in android devices and how to use them. Students will also be trained on multithreading which is essential for graphics related applications.

## 22. Graphics Programming (Part 2)

This Session gives a detailed description about how to create animations using frame animation and using graphics library. Students will also be trained on creating small games based on animations, graphics library and multithreading.

## 23. Testing

In this Topic- In this Session students will get an idea regarding how android applications are tested and debugging process. They will be trained on the testing tools present in Android SDK for testing user interface, memory management and memory leaks etc.

### **Project work**

Hands on experiences (Latest tools, techniques, Software's) from application area. Trainee will gain a Consolidated knowledge of the Android SDK software. Trainee can use this experience as a real time experience, as the trainee will get a real time exposure while working on the Project.

### **Outcomes of Android Application Development Course**

After successfully completing this course, you will have acquired an understanding of general Android terms and the basic functionality of Android software suite.

1. Create utility applications.
2. Design a Custom UI.
3. Create Location based services applications.
4. Creating SMS based applications.
5. Create and Invoke the Live stream videos.
6. Work with Widgets.