



# Android Application Development Training

## Learning Objectives

The objective of this program is to give attendees a course in Android Programming. It will introduce the Framework, Programming languages and other relevant APIs to the audience and will help them understand the concepts and techniques behind the Android Application development. It is expected that after the course the attendee will be able to work independently on Android application development and will be able to migrate from conventional technologies to Android related technologies effectively.

## Why Android?

Imagine you are an IT industry expert and you are talking to a college passed out fresh IT graduate. Now, you have been asked what technology you would like to build career in. Guess, what would the reply!!!

70%+ individuals will respond .NET, Java or PHP. Yes, that is true! Lot of people are planning and opting for their career in commonly this area. So, what is wrong in that? Well, actually, nothing is wrong. But, if you think back once more, you see how big the competition is. If you are one of them and opting for a career in any of the above mentioned technologies then, you are going to one of the common available resource in IT industry. Everybody in the world knows, easily available items do not carry much value with them. IT professionals are not exceptions. Rarely available technical expertise is the most valuable in the market. As of now, not many mobile developers are available in the market. Thinking this business concept, SSI has chosen the field which is under developed and is going to be most demanding in the coming future.

## Prerequisites

- Understanding of Core Java Programming (We provide Core Java Training also).
- Any experience in Mobile development will be an added advantage.

## Course Duration

80 Hours (Online training Sessions with Hands On).



### **Why SSi ?**

- Strong team
- We are not only training center. Our main focus is product development and service business.
- 11 years of IT experience.
- In depth knowledge of android.
- 30+ projects successfully executed.
- Professional android trainers.
- Friendly learning atmosphere.

### **What does an individual expect when attending any training?**

- Good and friendly learning environment.
- Updates on latest developments.
- Practical sessions.
- Ability to innovate.
- Personal guidance and help.
- Certificates.
- Trained faculty.
- Regular evaluation.
- Printed material for reference.

**In short complete returns of the individual's investments. You will get all these and much more...**

### **What we offer?**

We understand learning only Android cannot make a college graduate an IT professional. So, we have integrated **SDLC** learning in this training session. To make our students feel how real IT project works, we will follow a complete SDLC with a live project execution. Definitely, 3 months is not a sufficient time to teach SDLC and soft aspect of IT world. But, we give the realistic picture of how the IT world looks like in this short span of time.



### **We provide:**

- 2 months classroom and practical sessions.
- Personal workstation to do practice.
- Internet Connection to do work and search necessary material
- Printed Study Material.
- Certificate of training\*.
- Free next complete coverage training with advanced topic\*\*.
- Live project to work on \*\*\*.
- Exercise at the end of each session to evaluate how much the students have understood the concept.
- Time to time review about what is missing to learn and grow fast.
- In Person meeting and feedback of learning and personal care of poor student.
- Anytime help by any media [Email/IM/Phone/In person].

\* We have a final test at end of training batch. If student fails, we take special batches for them to explain and teach Android and retest them. We repeat this process until student is eligible enough to work on Android. We give Training Certificate only if the student clears exam with sufficient knowledge and marks.

\*\* We encourage hard work during the training session as this is not free training. So, to encourage student learn well, we offer a free next complete coverage training with advanced topic absolutely free if student passes the exam with 90% or more.

\*\*\* **Student will not be ready to take major challenges from first day of classes. So, once student is mid-way through the training and once we feel student is ready to get real flavor of live project, we assign students the live project.**

### **Who can attend this course?**

- Computer Science Student: If you are student and you are planning to make your career in mobile development.
- Beginner/Intermediate developer: If you are beginner in programming and want to jump onto the Android Applications development bandwagon and start making money.
- Experienced: If you would like to master Android Development through a step-by-step system and want to learn each cycle of development of Android application.
- Self Employed: If you have an Android App Idea or dreamed of creating one that you believe could be the next potential blockbuster on the online market. You can sell your application and earn unbelievable income.
- Freelancers: If you want to work as a freelancer that gets paid \$30 to \$40 per hour for Android development, in a global market that currently has a short supply and high demand for Android coders.

Feel free to take your first step towards starting to learn Android Application Development, and be wise to invest your time and money in a system which makes your career shine better. Just contact us for free consultation today.



## Course Contents

### Android Overview and History

- How it all got started
- Why Android is different (and important)

### Android Stack

- Overview of the stack
- Linux kernel
- Native libraries
- Dalvik
- App framework
- Apps

### SDK Overview

- Platforms
- Tools
- Versions

### Hello World App

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

### Main Building Blocks

- Activities
- Activity lifecycle
- Intents
- Services
- Content Providers
- Broadcast Receivers

### Basic Android UserInterface

- XML versus Java UI
- Dips and sps
- Views and layouts
- Common UI components
- Handling user events

### Android system Overview

- File System
- Preferences
- Notifications
- Security model



## **Advanced UI**

- Selection components
- Adapters
- Complex UI components
- Building UI for performance
- Menus and Dialogs
- Graphics & animations
- Multimedia in Android
- Multimedia Supported audio formats
- Simple media playback
- Supported video formats
- Simple video playback

## **SQL Database**

- Introducing SQLite
- SQLite Open Helper and creating a database
- Opening and closing a database
- Working with cursors Inserts, updates, and deletes

## **Basic Content Providers**

- Content provider MIME types
- Searching for content
- Adding, changing, and removing content
- Working with content files

## **Advanced Android**

### **Custom Content Providers**

- Why Content Providers
- Where the content comes from
- Implementing the API Supporting content files

### **Location Based Services and Google Maps**

- Using Location Based Services
- Working with Google Maps

### **Services**

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

### **Broadcast Receivers**

- What are Broadcast Receivers
- Implementing broadcast receiver
- System broadcasts and how to use them



## **Intent Filters**

- Role of filters
- Intent-matching rules
- Filters in your manifest
- Filters in dynamic Broadcast Receivers

## **Networking**

- Working with web services
- Best practices

## **Sensors**

- How Sensors work
- List to Sensor readings
- Best practices for performance

## **WiFi**

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

## **Telephony**

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

## **Camera**

- Taking pictures
- Rendering previews

## **Bluetooth**

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

## **Web Services and XML**

- Consuming Web Services
- HTTP Request Response Model
- XML Parsing

## **Open GLES**

- Introduction to Open GLES

## **Android Application Deployment**

- Android Application Deployment on device with Windows
- Android Application Deployment on Android Market