

# Advance Android Mobile Applications Development

## Course Description

This 5-day Advance Android Mobile Application Development Course is designed for experienced Developers who have already begun developing Android Apps, who wish to utilize advance programming techniques. This course will teach you advance technologies such as database operations, WIFI, sensors, camera, location-based services, cloud integration, and deployment to Google Play Store.

## Audience

The training is designed to cater to everyone interested in learning Android Mobile App Development.

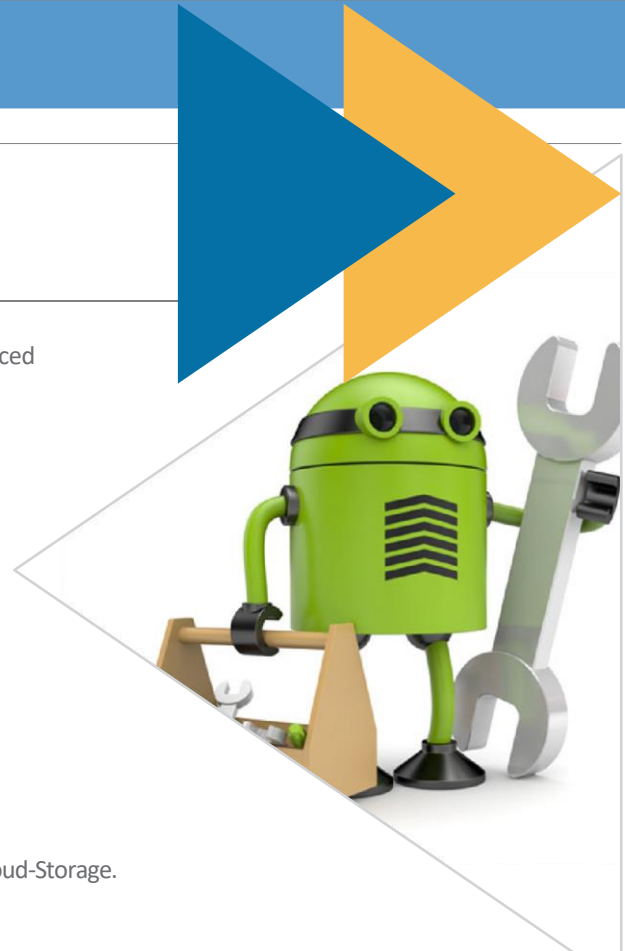
## Pre-Requisite:

Attended the Basic Android Mobile Application Development Course.

## Course Objective:

Upon completion of this course, you will be able to:

1. Enhance Android Apps built from the Basic Course.
2. Use advance features of Android SDK such as Sensor, Camera, Location-Based Services, and Cloud-Storage.
3. Be able to deploy Android Apps to Google Play Store.



## Course Outline

### I. Web Services (JSON & API) (16 Hours)

- Fundamentals of Web Services and Concepts
- Application Programming Interface
- Android Development Tools
- Implementing Volley and other 3<sup>rd</sup> party frameworks
- Creating API with PHP & MySQL
- Sending data using POST & GET Method
- Retrieve, update, delete records using API
- Uploading & Retrieve Files & Images to the Web Server

### II. Location Manager and Google Maps (8 Hours)

- Converting Address to Coordinates using Geocoding
- Converting Coordinates into Address using Geocoding
- Getting current user location
- Android Google Map Fundamentals and Its Concepts
- Getting Started with Google Map
- Configuring API Key from Google Developer Portal
- Setting up Project with Google Map Fragment
- Assigning PIN Markers and User Location
- Customizing a Marker
- Handling Marker's drag and drop action
- Calculate distance from Multiple Locations
- **Exercise: Branch Locator App**

### III. Mobile Storage and Persistence (2 Hours)

- Introduction to Shared Preferences and Its Concepts
- Defining and Accessing Shared Preferences
- Programmatic Retrieving Preference Keys and Values
- Saving Data from Internal Storage
- Writing File and Reading File
- Retrieving Data using Buffer Reader
- Writing Data to External Storage
- Obtaining Permissions for External Storage
- Saving a file on External Storage
- Reading Data from External Storage Using Buffer Reader

### IV. Android Device Hardware and APIs (6 Hours)

- Fundamentals of Android SMS and Telephony
- Benefits of SMS
- SMS and Internal App Permission
- Accessing Telephony Information
- Telephony and Subscription Manager
- Sending SMS and Retrieving SMS Message
- Sending Email Programmatically
- Android Camera and Its Fundamentals
- Working with Camera and Photo Gallery
- Using Existing Camera Apps
- Image Capture Using Intent and Gallery
- Receiving Camera Intent Result
- Saving Media Files
- Capturing Photo from Camera and Settings as Wallpaper
- Generating and Reading QR Codes using Zxing Framework
- Fingerprint Authentication

### V. Google Play Deployment and Final Project (8 Hours)

- Setting up Google Developer Account
- Setting up a Google Payments Merchant Account
- Exporting Signed APK File from Android Project
- Preparing Android App before Submitting to Google Play

**Training Fee: P30,000 (VAT-inclusive)**

**Training Duration: 5 Days (40 Training Hours)**

**\*This Course Outline is subject to change without prior notice.**

**\*Upon completion, participant will receive a Certificate of Completion from Fasttrack IT Academy**