

Advance Android Mobile Applications Development

Course Description

This 6-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 : SQLite Database Integration (8 Hours)

- Introduction to SQLite Database Scheme
- Fundamentals of Android SQLite Database
- Defining Database
- Scheme Implementation of Class
- SQLiteOpenHelper
- Creating SQLite Database Table and Fields
- Operations and its Concepts
- Setting-up methods for SQLite Database
- Inserting records in SQLite Database
- Handling record set using Cursor
- Getting specific record entry to display
- Displaying record set into ListView
- Update record in SQLite Database
- Delete record in SQLite Database

II : Mobile Storage and Persistence (8 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
- Reading File
- Retrieving Data using Buffer Reader
- Writing Data to External Storage
- Obtaining Permissions for External Storage
- Saving a File on External Storage
- Public and Private Files
- Reading Data from External Storage Using Buffer Reader

III : Android Device Hardware and APIs (8 Hours)

- Fundamentals of Android SMS and Telephony
- Benefits of SMS
- SMS and Internal App Permission
- Accessing Telephony Information
- Telephony Manager
- Sending SMS and Retrieving SMS Message
- Sending Email Programmatically

- Android Bluetooth
- Bluetooth Permission
- Setting up Bluetooth
- Android Wi-Fi
- WifiManager Class
- Wi-Fi P2P
- 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 Setting as Wallpaper
- Display Metrics Class
- Sample Application: Camera and Wallpaper App
- Android Sensor Fundamentals
- Sensor Android Platform
- Sensor Framework and Classes
- Retrieving Device Sensor
- Working with Accelerometer and Its Concepts
- Using Accelerometer

IV : Android Web Services, API & Google Volley (8 Hours)

- Fundamentals of Google Volley and Its Concepts
- Why Web Service?
- Why Use Web Service in Android Applications
- Google Volley
- Importing Android Volley
- Standard Network Requests
- JSON Requests
- Google GSON
- Converting JSON to GSON
- Creating API Using PHP & MySQL
- PHP Variables
- MySQL Database
- PHP Form Handling
- PHP Arrays
- MySQL Query
- MySQL Query Return Values

V : Google Maps Integration (8 Hours)

- Android Google Map Fundamentals and Its Concepts
- Getting Started with Google Map
- Configuring API Key from Google Developer Portal
- Adding the API Key to Your Application
- Setting up Project with Google Map Fragment
- Running and Testing Google Map App
- Assigning PIN Markers and User Location
- Customizing a Marker
- Customizing the Marker Color
- GoogleMap Methods
- Inserting Circle Marker and Region

VI : Google Play Deployment and App Testing (8 Hours)

- Publishing Overview
- Setting up Google Developer Account
- Setting up a Google Payments Merchant Account
- Exporting APK File from Android Project
- Preparing Android App before Submitting to Google Play
- Android App Testing using Emulator and Device
- Running Your App

Training Fee: P30,000 (VAT-inclusive)

Training Duration: 6 Days (48 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