

Android Introduction

- ❖ What is Android
- ❖ Compare Android to other Mobile Platforms
- ❖ Why Android is Important?
- ❖ Software Stack,
- ❖ Linux Kernel,
- ❖ Android Emulator
- ❖ SDK and Platforms
- ❖ Setup Eclipse & Android Studio
- ❖ SDK Versions
- ❖ Internal Details
- ❖ AndroidManifest.xml
- ❖ Hide Title Bar
- ❖ History and Version
- ❖ Overview of the Stack
- ❖ Application Framework
- ❖ Installing softwares
- ❖ Tools
- ❖ Hello Android example
- ❖ Dalvik VM
- ❖ R.java

Core Building Block

- ❖ Activity ,Intent and Fragment
- ❖ Implicit Intent
- ❖ startActivityForResult
- ❖ Broadcast Receiver
- ❖ Activity Lifecycle
- ❖ Explicit Intent
- ❖ Content Provider
- ❖ Services

Android UI Widgets and Layouts

- ❖ Working with Button
- ❖ Custom Toast
- ❖ CheckBox
- ❖ List View,WebView,Expandable List View
- ❖ Spinner
- ❖ RatingBar
- ❖ TimePicker
- ❖ Frame Layout,LinearLayout,TableLayout,Grid,Relative etc.
- ❖ Toast
- ❖ ToggleButton
- ❖ AlertDialog
- ❖ AutoCompleteTextView
- ❖ DatePicker
- ❖ ProgressBar

Basic Android User Interface

- ❖ Views and Layouts
- ❖ Defining Default Resource
- ❖ Common UI Component
- ❖ Create Alternative Resource

Advance User Interface

- ❖ Adapters
- ❖ Simple Cursor Adapter
- ❖ Array Adapter

SQLite Database

- ❖ Introduction to SQLite Database
- ❖ SQLiteOpenHelper and Creating database
- ❖ Opening and Closing a Database
- ❖ Working with Cursor

Content Provider

- ❖ Introduction to Content Provider
- ❖ Defining URI for Provider
- ❖ Content Provider MIME Types
- ❖ Introduction to Content Resolver
- ❖ Access Predefined Content Provider

Broadcast Receiver

- ❖ What are Broadcast Receivers
- ❖ Implementing Broadcast Receiver
- ❖ System Broadcasts and How to use them

Services

- ❖ Overview of services in Android
- ❖ Implementing a Service
- ❖ Service Life Cycle
- ❖ Started Services Vs Bound Services
- ❖ Implementation of Started & Bound Services

Notifications

- ❖ Toast Notification
- ❖ Status Notification
- ❖ Understanding Notification Service

Menus in Android

- ❖ Option Menu
- ❖ Context Menu
- ❖ Popup Menu

Location Service

- ❖ Working with Location Manager
- ❖ Listening to Location updates
- ❖ Understanding Latitude and Longitude
- ❖ Obtaining User Location

Google Maps Apl

- ❖ Working with Maps External Library
- ❖ Register with Google Maps Service
- ❖ Animate Overlay on Map

Data Storage

- ❖ Internal Storage
- ❖ Shared Preferences
- ❖ External Storage
- ❖ SQLite Database

Android XML & JSON Parsing

- ❖ XML Parsing SAX
- ❖ XML Parsing DOM
- ❖ XMLPullParser
- ❖ JSON Parsing

Android Multimedia

- ❖ Playing Audio & Video in android

Web Interaction

- ❖ HttpClient& Http response
- ❖ Async Task
- ❖ JSON

Designing & Animation

- ❖ Designing Layouts with XML
- ❖ ActionBar
- ❖ Tween Animation
- ❖ Frame Animation

Wi-Fi

- ❖ Controlling Wi-Fi
- ❖ Monitoring and managing Internet Connectivity
- ❖ Managing active connection

Telephony Making Calls

- ❖ Accessing phone properties and status
- ❖ Controlling phone
- ❖ Sending SMS

Various API's Integration

- ❖ Android Speech API
- ❖ Telephony API
- ❖ Facebook Apl Integration Etc.

Android Web Service

- ❖ Understanding Web Service
- ❖ Consuming SOAP or REST Web Service

Android Bluetooth

- ❖ Controlling local Bluetooth device
- ❖ Discovering and Bonding remote Bluetooth device
- ❖ Managing Bluetooth Connections
- ❖ Communicating with Bluetooth

Android Camera

- ❖ Rendering Previews
- ❖ Taking Picture

Sensors

- ❖ How Sensor work
- ❖ Types of Sensors
- ❖ Listening to Sensor readings

Google Cloud Messaging

- ❖ Pushing Notification to all Register User