

Android Training Course

Duration: 45 Classes

1. **Android Overview and History:** - Mobile Application Development, Why Android is different and important, Android Overview.
2. **Android Stack:** - Overview of the stack, Linux kernel, Native libraries, Dalvik Virtual Machine, App framework, Applications.
3. **SDK Overview:** - Platforms, Tools, Versions, Installation, Architecture.
4. **Hello World App:** - Creating your first project, The manifest file, Layout resource, Running your app on Emulator
5. **Main Building Blocks:** - Activities, Activity lifecycle, Intents, Services, Broadcast, Receivers, Content Providers.
6. **Intent Filters:** - Role of filters, Filters in your manifest, Filters in dynamic BroadcastReceivers.
7. **Basic Android User Interface:** - Ways of UI creation, Views and layouts, Common UI components, Handling user events, Types of Resources, Accessing Resources in xml and Java, Internationalization in Android.
8. **Advanced UI Components:** - Selection components, Complex UI components, Menus and Dialogs, Adapters, Animations, TweenAnimation, FrameAnimation, FrameAnimation with Audio.
9. **Fragments:** - Working with Fragments.
10. **Adapters:** - BaseAdapter, ArrayAdapter.
11. **Android system Overview:** - File System, Preferences, Notifications, Security model, Android Application Debugging.
12. **Data Storage:** - SharedPreferences, Internal Storage (Files), External Storage (SD Card), and Database (SQLite).
13. **SQL Database:** - Introducing SQLite, Creating a database, SQLiteOpenHelper, SQLiteDatabase, SQLiteStatement, Opening and closing a database, working with database create, Insert, update, and delete, Working with Cursor.
14. **Basic Content Providers:** - Content provider MIME types, Searching for content, Adding, changing, and removing content, working with content files.
15. **Services:** - Overview of services in Android, Implementing a Service, Service lifecycle, Introduction to AIDL
16. **Broadcast Receivers:** - What are BroadcastReceivers, Implementing broadcast receiver.
17. **Multimedia in Android:** - Multimedia Supported audio and video formats, Simple audio and video play, Record Audio files, Simple video playback.
18. **Location Services and GPS:** - Working with the LocationManager, MapActivity, MapView, Overlay, GeoPoint, MapController, LocationListener...etc, Geocoding and Finding current location, working with Google Maps extensions.



19. **Telephony:** -Making calls, Monitoring data connectivity and activity, Accessing phone properties and status, controlling the phone.
20. **Camera:**-Taking pictures, Rendering previews
21. **Bluetooth:**-Controlling local Bluetooth device, Discovering and bonding with Bluetooth devices, Managing Bluetooth connections, Communicating with Bluetooth
22. **Wi-Fi:**-Monitoring and managing Internet connectivity, managing active connections, Managing Wifi.
23. **Sensors:**-Introduction to sensors, How Sensors working, Sensor implementation Using, SensorManager, SensorEventListener, SensorEvent.
24. **Custom Components:** -Custom Dialogs, Custom Views,Custom Adapter, Custom ListView.
25. **Web Services & XML Parsing:**-Xml is parsing with different parsers, SAX Parser, DOM Parser, XML Pull parser, Overview of web services in Android, Implementing a Web Service with Example.
26. **Development to deployment:**- Dalvik debugging tool, Handling multiple screen sizes, Execute .apk into a Devices, DDMS
27. **Generate .apk to Source file, Sending SMS, R eceiving SMS**

