

Android Training Syllabus

MODULE 1: JAVA Concepts

- OOPs Concepts
- Inheritance in detail
- Exception handling
- Packages & interfaces
- JVM & .jar file extension
- Multi threading (Thread class & Runnable Interface)

MODULE 2: SQL

- DML & DDL Queries in brief

MODULE 3: Introduction to Android

- What is Android?
- Setting up development environment
- Dalvik Virtual Machine & .apk file extension

Fundamentals:

- a. Basic Building blocks – Activities, Services, Broadcast Receivers & Content providers
- b. UI Components – Views & notifications
- c. Components for communication - Intents & Intent Filters
- Android API levels (versions & version names)

MODULE 4: Application Structure (in detail)

- AndroidManifest.xml
- uses-permission & uses-sdk
- Resources & R.java
- Assets
- Layouts & Drawable Resources

- Activities and Activity lifecycle
- First sample Application

MODULE 5: Emulator-Android Virtual Device

- Launching emulator
- Editing emulator settings
- Emulator shortcuts
- Logcat usage
- Introduction to DDMS
- Second App:- (switching between activities)
- Develop an app for demonstrating the communication between Intents

MODULE 6: Basic UI design

- Form widgets
- Text Fields
- Layouts
- [dip, dp, sip, sp] versus px
- Examples

MODULE 7: Preferences

- SharedPreferences
- Examples

MODULE 8: Menu

- Option menu
- Context menu
- Sub menu
- menu from xml
- menu via code
- Examples

MODULE 9: Intents (in detail)

- Explicit Intents

- Implicit intents
- Examples

MODULE 10: UI design

- Material Design
- Time and Date
- Images and media
- Composite
- AlertDialogs & Toast
- Popup
- Examples

MODULE 11: Tabs and Tab Activity

- Examples

MODULE 12: SQLite Concepts

- SQLite Programming
 - SQLiteOpenHelper
 - SQLiteDatabase
 - Cursor
 - Reading bookmarks
 - **Example :**
 - Develop an App to demonstrate database usage. CRUD operations must be implemented.
- Final details should be viewed in GridView as well as in ListView.

MODULE 13: Android Debug Bridge (adb) tool

MODULE 14: Adapters and Widgets

Adapters:-

- a.ArrayAdapters
- b.BaseAdapters
- ListView and ListActivity



- Custom listview
- GridView using adapters
- Gallery using adapters
- Examples

MODULE 15: Threads

- Threads running on UI thread (runOnUiThread)
- Worker thread
- Handlers & Runnable
- AsyncTask (in detail)
- Examples
- Live Folders
- Using sdcards
- XML Parsing
- JSON Parsing
- Maps, GPS, Location based Services

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