

Android Syllabus

JAVA Concepts

- OOPs Concepts
- Inheritance in detail
- Exception handling
- Packages & interfaces
- JVM & .jar file extension
- Collections - HashTable, Vector, List, ArrayList, HashMap
- Multi threading(Thread class & Runnable Interface)

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)

Application Structure(in detail)

- `AndroidManifest.xml`
 - `uses-permission` & `uses-sdk`
 - `Activity/services/receiver` declarations
- `Resources` & `R.java`
- `Assets`
- `Values` - `strings.xml`
- `Layouts` & `Drawable Resources`
- `Activities` and `Activity lifecycle`
- `First sample Application`
- `Deploying sample application on a real device`

Emulator-Android Virtual Device

- `Launching emulator`
- `Editing emulator settings`
- `Emulator shortcuts`

Basic UI design

- `Form widgets`
- `Text Fields`
- `Layouts`
 - `RelativeLayout` , `TableLayout` , `FrameLayout` , `LinearLayout`
 - `Nested layouts`

Intents (in detail)

- **Explicit Intents**
- **Implicit intents**

UI design

- Time and Date
- Images and media
- AlertDialogs & Toast
- Popup

SQLite Programming

- **SQLite Programming**
- **SQLiteOpenHelper**
- **SQLiteDatabase**
- **Cursor**
- **Content providers**
 - **Defining and using content providers**
 - **Example- Sharing database among two different applications using content providers**
- **providers**
- **Reading and updating Contacts**