

## **Android Course Contents**

#### Introduction

- Android What it is?
- · History of Android
- Importance of Java language for Android Apps
- Other mobile OS-es
- Android Versions & different development tools

### Java Fundamentals

- OOPS basics
- Classes & Objects
- Components of a Class
- Structure of a Class & Java File
- Inheritance
- Interfaces
- Abstract Class
- Polymorphism
- Overloading
- Overriding

### **Android Architecture**

### Significance of Android Project Structure

- Source Folder
- Generated Folder
- Assets folder
- Resources folder
- Android Manifest XML

# **Android Application Components**

- Activities & Fragments
- Activity Life Cycle

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• Activity – How to create your activity

## **Android Layouts**

- Layout XML files
- Absolute Layout
- Relative Layout
- Linear Layout
- Frame Layout
- Tab Layout
- Table Layout
- List Layout (List View)

### **Android Views & Widgets**

- Button View
- EditText View
- TextView View
- Image View
- Spinner

## Menus & Messages

- Adding option menus
- Adding popup menus
- · Showing dialogs
- Raising toasts

## **Intent & Intent Filters**

- Intents How and When to use them
- Intent Objects Action, Data & Category
- Intent Filters Matching Rules / Tests
- Explicit Intent & Implicit Intent

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#### **Services**

- Lifecycle of a Service
- When to use Services
- Main Application Threads & Worker Threads
- Intent Service

#### **Broadcast Receivers**

- Broadcast Receivers
- Listening for specified broadcasts
- System broadcasts
- Custom & User defined broadcasts
- Sticky Broadcasts
- Pending Intents

#### SQLite:

- Introducing SQLite
- SQLiteOpenHelper and creating a database
- Opening and closing a database
- Working with cursors
- Inserts, updates, and deletes

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- Adding option menus
- Adding popup menus
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#### **Intent & Intent Filters**

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### **Services**

Lifecycle of a Service

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- When to use Services
- Main Application Threads & Worker Threads
- **Intent Service**

## **External Database Communication**

- Introduction to JSON file formats
- Using Web Services to connect to remote DB
- Significance of AsyncTask class
- Use JSON for data communication to Web Services
- Fetching data from JSON & loading into Activities

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