

Android Syllabus

Introduction

1. Android – What it is?
2. History of Android
3. Importance of Java language for Android Apps
4. Other mobile OS-es
5. Android Versions & different development tools

Java Fundamentals

1. OOPS basics
2. Classes & Objects
3. Components of a Class
4. Structure of a Class & Java File
5. Inheritance
6. Interfaces
7. Abstract Class
8. Polymorphism
9. Overloading
10. Overriding

Significance of Android Project Structure

1. Source Folder
2. Generated Folder
3. Assets folder
4. Resources folder
5. Android Manifest XML

Android Application Components

1. Activities & Fragments
2. Activity Life Cycle
3. Activity – How to create your activity

Android Layouts

1. Layout XML files
2. Absolute Layout
3. Relative Layout
4. Linear Layout
5. Frame Layout
6. Tab Layout
7. Table Layout
8. List Layout (List View)

Material design

Android Views & Widgets

1. Button View
2. EditText View
3. TextView View
4. Image View
5. Spinner

Menus & Messages

1. Adding option menus
2. Adding popup menus
3. Showing dialogs
4. Raising toasts

Intent & Intent Filters

1. Intents – How and When to use them
2. Intent Objects – Action, Data & Category
3. Intent Filters – Matching Rules / Tests
4. Explicit Intent & Implicit Intent

Services

1. Lifecycle of a Service
2. When to use Services
3. Main Application Threads & Worker Threads
4. Intent Service

Broadcast Receivers

1. Broadcast Receivers
2. Listening for specified broadcasts
3. System broadcasts
4. Custom & User defined broadcasts
5. Sticky Broadcasts
6. Pending Intents

SQLite

1. Introducing SQLite
2. SQLiteOpenHelper and creating a database
3. Opening and closing a database
4. Working with cursors
5. Inserts, updates, and deletes

External Database Communication

1. Introduction to JSON file formats
2. Using Web Services to connect to remote DB
3. Significance of AsyncTask class
4. Use JSON for data communication to Web Services
5. Fetching data from JSON & loading into Activities