



COVERAGE

Introduction to Android
Android UI (User Interface)
Intent
Data Storage
Service
Broadcast Receiver
Content Provider
Location Service

Google Map
Accessing Web Application
Firebase
Adapter
Fragment
Material Design
Project

SYLLABUS IN DETAILS

1. Introduction to Android

- What is Android?
- Benefits of Android App Development
- Android Architecture
 - Android Components
 - Android Studio Installation
- Anatomy of Android Application
- Building the Hello World App
- Building Layouts Using Java and XML Code
- Activity Life Cycle

2. Android UI (User Interface)

- TextView, EditText, Button
- Checkbox, RadioButton
- RatingBar, WebView
- ImageView, VideoView
- ListView, GridView, Spinner
- Auto Complete TextView
- Multi Auto Complete TextView
- Toast, Dialog, Menu
- DatePicker and Time Picker
- View Flipper
- LinearLayout, RelativeLayout, Table Layout, Frame Layout, Absolute Layout

3. Intent

- Introduction to Intent
- Types of Intent

Explicit Intent

Implicit Intent

- Data transfer between activities
- Returning Data From Called Activity to Calling Activity
- Camera Photo Capture
- Capture Video using Intent
- Splash Screen

4. Data Storage

- Shared Preference
- File
- Internal Storage
- External Storage
 - SQLite Database
- Introduction to SQLite Database
- Introduction to SQL
 - SQL Sublanguages (DDL, DML, DRL, TCL and DCL)

Create Database

Create Table

Insert, Read, Delete and Update Operation

Add and Retrieve Image

5. Service

- Introduction to Service
- Types of Service
- Started Service
- Bounded Service
 - Different Ways to Create Started Service
 - Service Life Cycle
 - Working with Bound Service

6. Broadcast Receiver

- Introduction to Broadcast Receiver
- Different Ways to Register Broadcast Receiver
- Programmatic Approach
- Declarative Approach
 - Broadcast Receiver for responding outgoing call
 - Broadcast Receiver for responding incoming SMS
 - Incoming Outgoing Call Log With Call Duration

7. Content Provider

- Introduction to Content Provider
- Content Provider Work Flow
- Accessing Contact App using Content Provider
- Accessing SMS App using Content Provider

8. Location Service

- Introduction to Location Based Services
- Difference Between GPS and Network Provider
- Fetch Users Current Location
- Reverse Geocoding using Geocoder
- Location based apps for finding people

9. Google Map

- Introduction to Google Maps
- Getting the Google Map key
- Map View
- Map Fragment
- Markers
- Search Location

10. Web Application Integration

- Introduction to PHP and MySQL
- AsyncTask
- HttpURLConnection
- Insert, Read, Delete and Update Operation
- Login and Registration Module
- Search Suggestion

11. Firebase

- Introduction to Firebase
- Features of Firebase
- Configure firebase
- Login and Registration Authentication

12. Adapter in Android

- Base Adapter
- Simple Adapter
- Custom Simple Adapter
- Array Adapter
- Custom Array Adapter

13. Fragment

- Fragment Basics
- Fragment Transactions
- Fragments lifecycle
- Fragments and the Action Bar

14. Material Design

- Understanding Material Design
- RecyclerView
- CardView
- Implementing the Navigation Drawer
- Tab Layout
- ViewPager

15. Miscellaneous App

- Text to Speech Conversion
- Speech to Text Conversion
- Send SMS using SMS Manager
- Play Music
- Auto Messaging App

16. Project