

Android Syllabus

Introduction

- What is Android
- Mobile devices history
- Why Android is different
- History & Versions of Android
- Android features
- JVM & DVM

Android Architecture

Android installation

- Using Eclipse, Android SDK & ADT plugin
- Using Android Studio

Hello world Application

- How to create Android Application
- Project structure
- Build process of Android Application
- Running on Emulator

Debugging Android Application

- Logcat
- DDMS overview

Android Components

- Activity
- Service
- Broadcast Receiver
- Content Provider

Intents & Intent filters

- Implicit & Explicit Intents
- Intent filters

User Interface

- Views & View groups
- Ways of UI creation
- View Hierarchy
- Layouts
- Common UI components



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Advanced User interface

- List & Adapters
- Custom Lists
- Spinner, GridView & Progress bar
- Pickers & Dialogs

Menus, Tabs & Navigation Drawers

- Options Menu
- Context Menu
- Popup Menu
- TabHost
- Drawer Layout(Navigation Drawer)

Styles, Themes & Animations

Fragments

Preferences & Data storage

- Shared preferences
- File System
- Database Storage Overview

SQLite

- Create Database
- Open & Close Database
- Create Tables
- Create, Insert(Read), Update & Delete data from Tables

Tasks, Handlers and Loaders

Services

- What is Android Service
- Start & Stop Service
- Bind Service

Broadcast Receivers

- What is a Broadcast Receiver
- Implementing a Broadcast Receiver



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Networking

- TCP & UDP Overview
- HTTP
- XML
- JSON
- Using AsyncTask for HTTP Connections
- Overview of Web Services
 - SOAP

Multimedia

- Multimedia API Overview
- MediaPlayer: Audio
- VideoView: Video
- Record Audio Files

Location based Services

- Location Manager
- How to get current location
- Show current location in MapView
- Geocoding
- Markers Overview

Deployment

- Signing Android Application
- Playstore Overview