

Mobile app Android Development

Module 1 : Introduction to Android

- Introduction to Android and history of Android
 - What is Android and its benefits?
 - Software architecture of Android
 - Advantages of Android
 - Android features
 - Tools
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Module 2 : Getting Started

- Installation and Configuration of Android
 - Step to create new project
 - Creation of New AVD
 - Creating run configuration
 - Creating your first Android activity
 - Running Your Application
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Module 3 : Introductions to Application Components

- Activities
 - Services
 - Broadcast receivers
 - Content providers
 - Intents
 - Notifications
 - Brief idea about manifest file and permissions
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Module 4 : Android Component Life Cycle

- Activity Life Cycle with sample program
- Service Life Cycle with sample program

Module 5 : Android Layouts

- What are views, Layouts and there classification?
- How Android Draws views and Layout?
- Table Layout In detail with Example
- Tab Layout In detail with Example
- Frame Layout In detail with Example
- Absolute Layout In detail with Example
- Linear Layout in detail with Example

Module 6 : Android Views

- Grid View In detail With Example
- Map View In detail with Example
- Web View In detail with Example
- Spinner In detail with Example
- Gallery In detail with Example
- Map View In detail with Example
- Different ways of creating views Using xml

Module 7 : Styles and Themes

- Introduction to styles and themes
- Creating custom style and theme
- Different resource file location
- Accessing resources
- Accessing platform resources
- Handling runtime changes

Module 8 : What are Fragments?

- Multipane & Singlepane
- Fragment Life Cycle
- Addition of Fragments
- Fragments Working without UI
- Dymanic ui using fragments

Module 9 : Introduction to Menus

- How to create menus?
 - Types of Android Application Menus
 - Option Menu In detail with example
 - Context Menu In detail with example
 - Popup Menu-In detail with example
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Module 10 : Introduction to Drawers

- Navigation Drawer
 - Simple Side Drawer
 - Tab Drawer
 - Extra Drawer
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Module 11 : Handling User Interaction Events

- Handling user events
 - Different types of event listener
 - OnClickO
 - OnLongClickO
 - OnFocusChangeO
 - OnKeyO
 - OnTouchO
 - OnCreateContextMenuO
 - Different types of event handler
 - OnKeyDown (int, KeyEvent)
 - OnKeyUp (int, KeyEvent)
 - OnTrackballEvent (MotionEvent)
 - OnTouchEvent (MotionEvent)
 - OnFocusChanged (boolean,int,Rect)
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Module 12 : Creating Dialogs

- Introduction to dialogs
- Showing and dismissing of dialog boxes
- Alert dialog In detail with example
- Progress dialog In detail with example
- Threading and handler

Module 13 : Notifications

- Notifying Users
- Status bar Notification
- Toast Notification
- Dialog Notification
- Remote notification

Module 14 : Intents, Broadcast Receivers, Adapters and Internet

- Different types of intent?
- Launching sub-activities
- What is intent filter
- Intent objects - In detail with example
- Using intents to take pictures
- Handling sub activity results

Module 15 : Data Storage

- Android techniques for data storage
- Creating and saving shared preferences
- Retrieving shared preferences
- Storing & Loading from files
- Storing in databases

Module 16 : Working with SQL Lite

- Introducing SQLite database
- Working with Android databases
- Using SQLiteOpenHelper
- Cursors and content values
- Opening and closing Database

Module 17 : Working in Background

- Introducing services
- Creating and controlling services

- Registering a service in the manifest
 - Starting, controlling, and interacting with a service
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Module 18 : Using the Camera, Taking Pictures and the Media API

- Controlling the camera and taking pictures
 - Playing audio and video
 - Introducing the media player
 - Preparing audio for playback
 - Packaging audio as an application resource
 - Playing video using the video view
 - Recording audio and video
 - Adding new media to media storage
 - Inserting Media into the Media Store
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Module 19 : Maps, GEO coding and Location Based

- Services
 - Using Location Based Services
 - Working with the location manager
 - Configuring the Emulator to Test Location Based Services
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Module 20 : Content Providers

- What is content provider
 - Creating Content provider
 - Retrieving data using Content provider data
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Module 21 : Web Services with Architecture

- What are webservices
- Web service Architecture
- Async Task
- REST & SOAP
- Parsing Techniques JSON, XML
- Consuming WebServices
- CRUD Operations over Server

Module 22 : Assignment

- Real Life Project

