

Android Syllabus

Introduction to Android

- History of Android
- Android features

Android SDK

- Brief Introduction to Android Platform Layers
- SDK and its Components
- Eclipse and SDK installation
- Creating first Android application
- Understanding Android Project Structure in Eclipse
- Emulator and AVD creation
- SDK Tools
- Manifest File
- Understanding how APK is created

Basic Concepts of Android

Activity

- Creating Views and Activities(UI Development)
- Using XML-Based Layouts
- Handling UI Events
- Building Menus
- Creating Tabs
- Creating Dialogs using Activity
- Understanding Activity Life Cycle

Services

- Creating Services
- Usage of Service
- Life-Cycle of a Service
- Implementing a Service
- Modifying your Manifest file
- Invoking a Service

Intents

- What's Intent
- Parts of Intent
- Explicit and Implicit Intent
- Role of Filters Intent Resolution
- Filters in your manifest
- Filters in dynamic Broadcast Receivers

Broadcast Receivers

- What are Broadcast Receivers
- Implementing broadcast receiver
- System broadcasts and how to use them

Data Storage

- Various types of Storage in Android
- Preferences
- Files
- SQLite Databases

Content Provider

- Understanding basics of Content Provider
- Using Built-in Content Providers
- Developing apps using Built-In Logs and Contact Providers.

Debugging

- Debugging and troubleshooting techniques
- Using DDMS
- Debugging through Eclipse
- Various debug tools in Android platform

Advanced Android Concepts

Using Bluetooth

- Understanding Android Bluetooth
- Understanding Bluetooth manager

Using Google Maps in Android Apps

- Understanding Android Location Manager
- Understanding Google Maps API for Android
- Using Google Maps API to display Maps

Android Security

- Various ways to protect your Apps
- Using Permissions
- Declaring Permissions

Basic 2D-Graphics

- Gallery
- Twin

- Frame

Multimedia in android

- Multimedia supported audio formats
- Simple media playback
- Supported video formats

Using Telephony and SMS

- Understanding Telephony Manager
- Making calls
- Monitoring data connectivity and activity
- Accessing phone properties and status
- Controlling the phone
- Using SMS Manager

Wi-Fi and Networking

- Creating Apps using Android Wi-Fi APIs
- Creating Apps using Android Networking APIs