

ANDROID TRAINING PROGRAM COURSE CONTENT

Android Architecture

- System architecture of Android Activities
- Android Components
- Android Manifest

Android Development Tools

- Installation of the Android Development Tools (ADT)
- Creating Android projects in Android Studio
- Defining Devices, Emulator and Images & using dependencies

Defining Android User Interfaces

- Views
- Layouts
- Accessing widgets in Activities
- View interaction

Material Design Concepts

- Material Design colors
- Material design layouts
- New concepts in material design

Development of different screen sizes

- Screen sizes and Densities
- Using device independent pixel (dp)
- Converting between pixels and dp

Intents and Activity Communication

- Intents
- IntentFilter
- Defining Activities
- Activity stack

AppBar & Toolbar

- ActionBar vs. OptionMenu
- Defining an ActionBar menu
- Views in the Toolbar & options Menu
- Contextual action mode

Styling and Themes

- Styling of Views
- Using Themes for styling Activities
- Extending Android themes (Holo) & Materialistic Themes

ListViews and ListActivity

- ListView & RecyclerView
- ListActivity
- Defining List Adapter
- Performance Optimization

File based Persistence

- Preferences
- File and Access restrictions
- Permissions

Security

- Androids security concept
- Using Permissions
- Defining Permissions

Network Communication

- HttpURLConnection Class
- REST
- JSON Parsing

Asynchronous Processing in Android

- Multitasking

- User Interface Updates via Threads
- Androids Limits – Application Not Responding
- Using Handler for message communication
- Using AsyncTask

SQLite and ContentProvider

- Using the SQLite Database in Android
- Outlook: Using and defining ContentProvider
- Outlook: Loader

Services

- Android System Services, AlertManager, VibratorManager, etc
- Outlook: Definition of own Services

Broadcast Receiver

- Definition of a BroadcastReceiver
- Registration of own BroadcastReceiver

NotificationManager

- Using the NotificationManager
- NotificationBuilder

Push Notification

- GCM concepts
- Using Push Notifications

Location services and Google Maps

- Location based Services
- Google Maps
- Map-Overlays
- Geocoding / Reverse Geocoding
- Using GPS, Wifi, ...

Homescreen Widgets

- RemoteViews and PendingIntents

- Updates with a fixed time interval
- Updates with Services

Using Android Sensors

- Accelerometer
- Orientation
- Camera

Audio and Video

- Playing and recording audio
- Playing and recording video

Build Management

- Gradle

Professional Testing

- Overview Android testing
- Android Test Project Updates with a fixed time interval
- Using Robotium
- Using Robolectric

Targeting Tablets and Smartphones

- Overview Fragments
- Multi-Pane Layouts with Fragments
- Designing layouts for tablets and phones

Deployment

- Deployment Option
- Markets (Google Play / Amazon)
- Update Deployed Application

COURSE OBJECTIVE OF ANDROID TRAINING

- Basic Concept of Core Java programming used to develop Android application
- Complete Android structure understanding.
- SDK(Software Development KIT) understanding

- Writing programs in Android environment
- Knowledge of various Android building blocks.
- Android application development skills.
- Building own Android app.
- Building Android Apps for clients.
- Working as a freelancer Android app developer.

WHO SHOULD OPT FOR ANDROID TRAINING PROGRAM

- Students who wish to make their career in Application development.
- IT working Professionals
- Those who want to switch career path and have basic programming skills.
- Students have clear concept of object oriented language such as Core Java and C++
- Java Programming skills with basic knowledge of using Eclipse as a Java Environment.

BENEFITS OF ANDROID TRAINING FROM W3TRAINING SCHOOL

- Android training by Highly experience and professional faculty
- Training program as per industry requirement to get a taste of real life situation
- Flexible timing and separate batches for students and professionals
- Job assistance for students.
- Small batch sizes for more interactive training program.
- Complete training based on practical and project works.