

## Course Title: Android Development Basics

Duration: 40 hours

### Module – 1

- Evolution of Android
- Android Development Environment/ Environment setup
- Android Application Architecture
- Creating your first project - Hello World
- The manifest file, Dalvik VM, R.java, Screen Orientation
- Layout resources (LinearLayout, RelativeLayout, FrameLayout etc)
- Running your app on Emulator

### Module – 2

- Android application and activity life cycle
- Android Intents (Implicit and Explicit)
- The Android permissions model
- Using lists in Android (ListView)
- Using lists and grids in Android with RecyclerView
- Using Data binding in Android applications
- Android Logging. Working with Button, ToggleButton, Toast, CheckBox, Spinner etc

### Module – 3

- Multi-pane development in Android with Fragments
- Showing dialogs in Android with fragments
- Using the Android Toolbar (ActionBar)
- Using Swipe-to-refresh in Android applications

### Module – 4

- Android SQLite database and content provider
- Android XML and JSON Processing
- Android Persistence with preferences, Shared Preferences and files
- Android background processing with Handlers, AsyncTask and Loaders

### Module – 5

- Downloading and handling images in Android applications.
- Android Drawables
- Android styles and themes. Material Design.
- Android resource selectors
- Navigation Drawer

## Module – 6

- Alert Dialogs
- Animations
- Auto Complete
- Camera
- Social Media Integration (like Facebook)
- Loading Spinner
- Progress Circle
- Progress Bar

## Module – 7: Hands-on Project

- Requirements
- Architecture
- Implementation
- Industry connect

### **\*\*Prerequisites:**

1. Concept of OOP and Core java.
2. Laptop and android mobile.