**Learning Android**

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| **#** | **Topic** | **Description** |
| **1** | **1.0** | **MODULE 1 – FUNDAMENTALS**  • OOPS • Software Engineering • SQL Queries • Basics of Designing. |
| **2** | **2.0** | **MODULE 2 – LEARNING THE LANGUAGE (JAVA)**  • Introduction to Java • Bytecodes and Java Virtual Machine • Applications and Applets • Java Development Kit • Data types • Loops • Conditionals • Operators • Arrays. |
| **3** | **2.1** | • Classes and Objects • Encapsulation • Constructors • Inheritance • Method Overriding • Polymorphism • Abstract Methods and classes • Interface • Packaging • Exceptional Handling. |
| **4** | **2.2** | • Multitasking • Multithreading • Synchronization • Java I/O • XML Parse using DOM • SAX Parser • Abstract Windows Toolkit • Component • Java. |
| **5** | **3.0** | **MODULE 3 – ANDROID OS**  • Introduction to Java And Android • Introducing Development Framework • Dalvik Virtual Machine – DVM • Developing with Eclipse • Android Virtual Device and SDK Manager • Android Architecture and OOPS • Android Development Tools • Android Asset Packaging Tool (AAPT) • Android Debug Bridge • Types of Android Applications • Android Architecture and OOPS • Activity Lifecycle • Activity Classes • Introduction to Application Manifest • Installing Android • Component. |
| **6** | **4.0** | **MODULE 4 – BUILDING MOBILE APPLICATIONS WITH ANDROID**  • Android Layouts • Android UI and Advance Java • Android GUI Architecture • Layouts • Android Widget Toolbox • WebView • GridView • Understanding Android Menus • Intents and Processes • Graphics Animation and Multimedia • Bitmaps. |
| **7** | **4.1** | • Introduction to Audio on Android • Introduction to Video • Android Persistence • Android Preferences • Using File system • Accessing SD cards • Location and maps • Using GEOCoder • Creating and Using Overlays • Projections • Using Wake Locks • Android Text To Speech • Interprocess Communication • Paranoid Android • Internet Services. |
| **8** | **4.2** | • Broadcast receivers • Using Camera • Sensor Manager • Bluetooth • Network • Wi-Fi • AIDL and IPC • XML Parsing • Dom Parsing • SAX Parsing • JSON Parsing • SQLite Databases • Services and Content Providers • Introduction to Android. |
| **9** | **5.0** | **MODULE 5 – DATABASE CONNECTIVITY**  • SQLite Data Types • Cursors and Content Values • SQlite Open Helper • Adding, Updating and Deleting Content. |
| **10** | **6.0** | **MODULE 6 – APPLICABILITY TO INDUSTRIAL PROJECTS**  • Project Scope • Database Dictionary • Flow Chart • High Level Requirements • Using Bluetooth and NFC in Android device • Localization in Android • Configuration changes. • Security and permissions • Web Services Integration • Deployment |