**Protere Technologies** 





# **Course Summary**

This course blends theory and practice to help you build great apps the right way. In this course, you'll work with instructors step-by-step to build a cloudconnected Android app, and learn best practices of mobile development, and Android development in particular.

# **Prerequisites and Requirements**

This Course is intended for student with at least 1 year of programming experience in Java or another object-oriented Programming language (For eg: C++, Objective C).



# **Salient Features of our Training Program**

- High Grade Quality
- Cost Effective and refund policy
- Personalized Attention
- Stimulating Industry-Oriented Environment
- We provide Industry readiness certification for the comprehensive information security course.

#### **Course Content**

- Android Introduction and Architecture
- Android Life Cycle
- Android installation, SDK manager
- Emulator, Android Devices, Android developer studio
- Cradle build environment, Eclipse integration
- SDK and Android API overview
- First App in android...
- Android user Interface (views, layouts..)
- Android form factors, Drawables, DPI, Supporting different devices
- Intent ,intent filter
- Android Manifest ,XML





### **Protere Technologies**

- Action bar, Option Menu, custom views
- Styling views ,themes
- Best practices for UI development
- Managing Activity , Fragments and dynamic UI, List View And List Activity, List Adapter
- Android System Services, Alert Manager, Broadcast receivers
- Definition of Own services
- Binding services with Activities
- File preferences ,file and Access
- Restrictions, permissions
- Interaction with other Apps
- Android Security using permissions
- Defining permissions
- SQLite in Android
- SQLite Architecture
- Using SQLite Database, content provider, sharing data, custom content providers
- Cursor and loader
- Apache Http client, Security protocols in Android (SSL/TLS/HTTPS)
- JSON Structures, JSON Parser, Basic Servlet, Basic Cloud Architecture, Cloud Sync
- RESTFUL APIs and Web services
- Notification Manager , Notification
- Transmitting data with Volley
- Data with sync adapter
- Builder, Rich notification
- Canvas API for Custom Views, View
- Location Services and Google Maps
- Location based Services
- Hardware API services (Sensors, NFC, WiFi, Blue tooth, Printer etc)
- Native Library, AIDL, Native library interface with a simple C based graphics code
- Connectivity manager (WiFi, Bluetooth, 3G/4G)
- Audio and video Streaming, media player life cycle
- Graphics APIs, Animation and graphics applications
- Testing ,Android Test frameworks, CTS
- ROM utilities and custom ROM basics
- Deployment, Google Market



1 Week 6 Hours

> 2 Week 12 Hours

2 Week 12 Hours

1 Week 6 Hours

### Protere Technologies



### Few Live projects that are planned (2-4 Weeks)

- Android Application Programming for restaurant, Medical App, Realty App and games
- Online Banking Application
- eCommerce Shopping Portal for Single and multi vendor
- Content Management System
- Learning management system and smart campus
- Corporate Resource management system
- eLibrary Management System
- Employee Payroll System
- Smart metering and M2M communication
- Solar energy IOT enabled diagnostic and automation
- Enterprise Security Analysis and Implementation
- Hadoop big data applications on retailing chains, apparels companies and hospital chains
- Enterprise mobility application for reality Apps
- Enterprise mobility application for medical Apps

