

Dear Student,

Based upon your enquiry we are pleased to send you the course curriculum for Android

Given below is the brief description for the course you are looking for:

Android Application Development

Quick recap of Core JAVA

Arrays and Enhanced for loop

OOPS programming in Java

- Class and object
- Various types of constructors
- Instance methods and static methods
- Use of this keyword
- Use of super keyword
- Inheritance
- Polymorphism
- Package and various scope rules
- Abstract class and interfaces
- Use of static, final keyword
- Annotations
- Anonymous class
- Anonymous object
- Nested classes

Exception handling in Java

- Type of errors
- try block
- catch block
- finally block
- unchecked exception
- checked exceptions

String Handling (String, StringBuilder, StringBuffer)

Collections (ArrayList, LinkedList, HashMap etc...)

Wrapper classes

Multithreading programming

- Thread class

- Runnable interface

Android Application Development

Introduction to Android

- What is Android?
- Devices based on Android
- Android Story
- Application components

Setting up an Android Studio Development Environment

- Hardware requirements
- Software requirements
- Installation of JDK
- Installation of Android Studio

Getting Started with Android Studio

- How to change theme?
- How to change font size?
- How to change Update settings?
- Code completion
- Parameter information
- Code generation
- Quick documentation lookup
- Optimizing imports
- Code folding
- Design mode
- Text mode

Android Architecture

- Android software stack
- Linux kernel
- Android Runtime (ART)

Activities

- What is Activity?
- Creating an Activity
- Basic Activity

- Empty Activity
- Google Maps Activity
- Activity life cycle
- Hiding or Changing the Activity Title
- Hiding the ActionBar of Activity

Running Application

- What is AVD?
- Creating Custom AVD
- Running App on AVD
- Simulating call in AVD
- Simulating SMS in AVD
- Running App on Real Device

Intents

- Basics of Intents
- Explicit Intents
- Implicit Intents
- Creating Intent
- Intent filters
- Intent filter Collision
- Sending Data
- Receiving Data
- Calling built-in applications
- Pending Intents
- Checking Intent Availability
- Activate Activities
- Activate Services
- Activate Broadcast Receivers

User Interface

- What is View?
- What is ViewGroup?
- RelativeLayout
- LinearLayout
- TableLayout
- GridLayout
- TextView

- Button
- RadioButton
- CheckBox
- Switch
- ToggleButton
- ImageButton
- ImageView
- ProgressBar
- Seekbar
- RatingBar
- Spinner
- WebView
- EditText
- RadioGroup
- ListView
- GridView
- ScrollView
- VideoView
- Date & Time related
- AutoCompleteTextView
- Create Layout by Programming

Event Handling

- Basics of Events
- Event Listener and Callback
- Multiple Event Listener
- Gestures
- Implement Shaker Event

Application Resources in Android

- What is Resource?
- Reusability
- Maintainability
- Alternatives
- String resource
- Color resource
- Dimension resource
- Access resource in XML

- Access resource in Code
- Resource directory anim
- Resource directory color
- Resource directory drawable
- Resource directory layout
- Resource directory menu
- Resource directory raw
- Resource directory values

Fragments

- What is Fragment?
- Creating a Fragment
- Fragment Lifecycle
- Fragment Management

Menu

- Options menu
- Context menu
- Popup menus

Shared Preferences

- What is Shared Preferences?
- Save data in Shared Preferences
- Show data from Shared Preferences
- Update data in Shared Preferences
- Delete data from Shared Preferences

Working with Files

- Internal Storage
- External Storage

Working with Database

- Database concepts
- What is SQLite?
- Data Types
- SQLiteOpenHelper
- SQLiteDatabase
- Cursor

- Content Values
- Create Table
- Primary key
- Insert Record
- Update Record
- Delete Records
- Show Records

Content Providers

- What is Content Provider?
- Accessing a Content Provider
- Content URI
- Content Resolver
- query()

Android Studio Master/Detail Flow Tutorial

- The Master/Detail flow
- Creating a Master/Detail Flow Activity
- The Anatomy of the Master/Detail Flow Template
- Modifying the Master/Detail Flow Template
- Changing the Content Model
- Changing the Detail Pane

Multithreading

- Thread Handlers
- What is UI thread?
- AsyncTask

Making Runtime Permission Requests

- Normal Permissions
- Dangerous Permissions
- Checking for a Permission
- Requesting Permission at Runtime

Photo, Audio and Video

- Taking Photo from Camera (Image Capture)
- Playing Audio
- Playing Video

- Making Videos
- Sound Recorder

Messaging

- SMS Messaging
- Sending E-mail with Intent
- Sending E-mail without Intent

Services

- What is Service?
- Started Service
- Bound Service
- Service Lifecycle

Location & google map API

- Display Map
- Find current latitude, longitude
- Monitoring Location
- Fetch location name by Latitude, Longitude
- Fetch Latitude, Longitude by location name

Sensors

- What is Sensors?
- Show Available Sensors in device
- Environmental Sensors
- Motion Sensors (Accelerometer)
- Position Sensors (Proximity)

Useful Stuff

- Toast
- AndroidManifest.xml (uses-permission etc...)
- Notifications
- ActionBar
- Styles & Themes
- AlertDialog
- Handling Rotation
- Animation

Android Tabbed Interface

Alarm service

Broadcast Receivers

Consuming Webservice

Consuming JSON service

Managing Bluetooth

Convert HTML5, CSS & Javascript app to android app

Debug application in Android Studio

Custom Launcher Icon

Creating an APK File for Distribution

Project

- Safety app (Emergency helper)
- Location tracker with web app
- Music player
- Whether app
- Shaker app
- Background call recorder
- Database driven app