



Android Application Development

Syllabus

Module 1

- Introduction JAVA Concepts
- OOPs Concepts
- Inheritance in detail
- Exception handling
- Packages & interfaces
- JVM & .jar file extension
- Multi-threading (Thread class & Runnable Interface) to Electronics & Computer Fundamentals

Module 2

- Introduction SQL Concepts
- DML & DDL Queries in brief Chapter

Module 3

- Introduction to Android
- What is Android?
- Setting up development environment
- Dalvik Virtual Machine & .apk file extension
- Fundamentals:
- Basic Building blocks - Activities, Services,
- Broadcast Receivers & Content providers
- UI Components - Views & notifications
- Components for communication -Intents & Intent
- Filters
- Android API levels (versions & version names)

Module 4

- Application Structure (in detail)
- AndroidManifest.xml
- Uses-permission & uses-sdk
- Resources & R.java
- Assets
- Layouts & Drawable Resources
- Activities and Activity lifecycle
- First sample Application



Module 5

- Emulator-Android Virtual Device
- Launching emulator
- Editing emulator settings
- Emulator shortcuts
- Logcat usage
- Introduction to DDMS
- Hello World App
- Creating your first project
- The manifest file
- Layout resource
- Running your app on Emulator
- Second App:- (switching between activities)
- Develop an app for demonstrating the communication between Intents

Module 6

- Basic UI design
- Form widgets
- Text Fields
- Layouts
- [dip, dp, sip, sp] versus px
- Examples

Module 7

- Preferences
- Shared Preferences
- Preferences from xml
- Examples

Module 8

- Menu
- Option menu
- Context menu
- Sub menu
- menu from xml
- menu via code
- Examples



Module 9

- Intents (in detail)
- Explicit Intents
- Implicit intents
- Examples

Module 10

- UI design
- Time and Date
- Images and media
- Composite
- Alert Dialogs & Toast
- Popup
- Tabs and Tab Activity
- Examples

Module 11

- Styles & Themes
- styles.xml
- drawable resources for shapes, gradients
- (selectors)
- style attribute in layout file
- Applying themes via code and manifest file
- Examples

Module 12

- SQLite Programming
- SQLiteOpenHelper
- SQLiteDatabase
- Cursor
- Reading and updating Contacts
- Reading bookmarks

Module 13

- Linkify
- Web URLs, Email address, text, map address,
- phone numbers
- MatchFilter & TransformFilter
- Examples



Module 14

- Adapters and Widgets
- Adapters:-
 - ArrayAdapter
 - BaseAdapters
- ListView and ListActivity
- Custom listview
- GridView using adapters
- Gallery using adapters
- Examples

Module 15

- Notifications
- Broadcast Receivers
- Services and notifications
- Toast
- Alarms

Module 16

- Threads
- Threads running on UI thread (runOnUiThread)
- Worker thread
- Handlers & Runnable
- AsyncTask (in detail)
- Examples

Module 17

- Live Folders
- Using sdcards
- XML Parsing
- JSON Parsing
- Maps, GPS, Location based Services
- Accessing Phone services (Call, SMS, MMS)
- Network connectivity services
- Sensors

Module 18

- Multimedia in Android
- Multimedia Supported audio formats
- Simple media playback
- Supported video formats
- Simple video playback



Module 19

- N Location Based Services and Google Maps
- Using Location Based Services
- Finding current location and listening for changes in location
- Proximity alerts
- Working with Google Maps
- Showing google map in an Activity
- Map Overlays
- Itemized overlays
- Geocoder
- Displaying route on map

Module 20

- WiFi
- Monitoring and managing Internet connectivity
- Managing active connections
- Managing WiFi networks

Module 21

- Telephony Services
- Making calls
- Monitoring data connectivity and activity
- Accessing phone properties and status
- Controlling the phone
- Sending messages

Module 22

- Camera
- Taking pictures
- Media Recorder
- Rendering preview

Module 20

- Bluetooth
- Controlling local Bluetooth device
- Discovering and bonding with Bluetooth devices
- Managing Bluetooth connections
- Communicating with Bluetooth

PARTICULARS OF STRENGTH

Name of School Certificate Course - Android Programming

Name of Teacher in charge..... STD..... DIV.....

MAL Medium ☐ ENG Medium ☐[illegible][illegible]

NO. OF STUDENTS STUDYING FIRST LANGUAGE

Malayalam			Arabic			Urdu			Sanskrit		
B	G	T	B	G	T	B	G	T	B	G	T

Register of Attendance and Fees for the Month of _____

No. on roll at the beginning of the month	...	Average No. on roll during the month	...
No. admitted during the month	...	Average Attendance	...
No. left during the month	...	Total School Days	...
No. on roll at the end of the month	...		

Inspecting Officer

Standard

Current fees collected	...	Balance of current fees due	...
Arrear fees collected	...	Balance of arrear fees due	...
Fine	...	Balance of fine due	...

Head Master

Register of Attendance and Fees for the Month of _____

March

Standard

[illegible]

No. on roll at the begining of the month	...
No. admitted during the month	...
No. left during the month	...
No. on roll at the end of the month	...

Class Teacher

Average No. on rool during the month
Average Attendance	...
Total School Days	...

Inspecting Officer

[illegible]

Current fees collected	...
Arrear fees collected	...
Fine	...

Total

Balance of current fees due	...
Balance of arrear fees due	...
Balance of fine due	...

Total

Head Master

Register of Attendance and Fees for the Month of

No. on roll at the beginning of the month ...	
No. admitted during the month ...	Average No. on roll during the month ...
No. left during the month ...	Average Attendance
No. on roll at the end of the month ...	Total School Days

Inspecting Officer

[illegible]

Total _____

Total ...

Head Master

Register of Attendance and Fees for the Month of _____

MAY

Standard

Admission No.	S.No.	NAME	Days																	
			Eng: Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	1	ANZILA.C																		
	2	VARSHA.TK																		
	3	KARTHIKEYAN.O									X									
	4	AMJAD RASHAN TM									X									
	5	FIJHA THAMANA.K																		
	6	FATHIMA RAHILA																		
	7	MURSHAD																		
	8	MIRZANA MOHAMMED KUTTY									X									
	9	AYSHA RISHAQA									X									
	10	ANWATH KUMAR KJ																		
	11	FEMISHA FEAN K.P									X									
	12	GASIL SAMAN.K									X									
	13	FARHAN AP																		
	14	ABIR F.P									X									
	15	ZUHRI NOOR									X									
	16	RAHUL P									X									
	17	VISHWASITH-MP									X									
	18	RASIN GAFOROV EV																		
	19	ADHIL ANZAR N.V																		
	20	FATHIMA SUHAILA T.																		
	21	HIBA C.P									X									
	22	FATHIMA RINSHA									X									
	23	FATHIMA HIBA									X									

No. on roll at the beginning of the month	...
No. admitted during the month	...
No. left during the month	...
No. on roll at the end of the month	...

Class Teacher

Average No. on rool during the month ...	
Average Attendance	...
Total School Days	...

Inspecting Officer

[illegible]

Current fees collected	...
Arrear fees collected	...
Fine	...

Total _____

Balance of current fees due	...
Balance of arrear fees due	...
Balance of fine due	...

Total ... _____
Head Master _____