



तीर्थंकर महावीर विश्वविद्यालय
Teerthanker Mahaveer University
An Ultimate Destination for World Class Education



android

ANDROID: MOBILE APPS DEVELOPMENT

COURSE CONTENT

Lesson 1. Android introduction and its history

Lesson 2. Android architecture, Android features and Android initializing process

Lesson 3. Activities

- i. Creating activity
- ii. Activity life cycle
- iii. Activity back stack

Lesson 4. Views, View hierarchy, and View groups

- i. Working with Views
- ii. Writing custom views
- iii. Working on view groups

Lesson 5. UI

- i. Layouts
- ii. Menus
 1. Options menu
 2. Context menu
 3. Sub menu
- iii. Dialogs
 1. Alert dialog
 2. Progress dialog
 3. Date picker dialog
 4. Time picker dialog
- iv. Event listeners
- v. Notifications
 1. Toasts
 2. Status bar notifications
- vi. Applying styles and themes to UI
- vii. Adapter views
 1. List views
 2. Gallery
 3. Grid view
- viii. Adapters
 1. Array adapter
 2. Cursor adapter
 3. Image adapter





Lesson 6. An Introduction to Android Fragments

- i. What is a Fragment?
- ii. Creating a Fragment
- iii. Adding a Fragment to an Activity using the Layout XML File
- iv. Adding and Managing Fragments in Code
- v. Handling Fragment Events
- vi. Implementing Fragment Communication

Lesson 7. Services

- i. Services overview
- ii. Service life cycle
- iii. Starting a service (Extending IntentService, Service)
- iv. Binding a service

Lesson 8. Data storage

- i. Shared preferences
- ii. Internal & External storages (Files)
- iii. SQLite Database & Cursor

Lesson 9. Content providers

- i. Content providers over view
- ii. Using existing Android content providers
- iii. Creating own content providers
- iv. Using custom made content providers

Lesson 10. Intents, Intent filters

- i. Overview (Action, Data, category, etc)
- ii. How intent work and writing our own intent
- iii. How intent filter works and writing our own i—f
- iv. Intent resolution tests

Lesson 11. Broadcast receivers

Lesson 12. Alarms manager & Pending intents

- i. Alarm managers with broadcast receivers

Lesson 13. Saving activity states (Seamlessness of application)

Lesson 14. Process & Threads

- i. Process life cycle
- ii. Difference between process, thread, task, application
- iii. Process priorities

Lesson 15. Threads & Async tasks

- i. Threads
 1. UI(Main) thread versus worker thread
 2. Loopers, handlers, and event flow from system
 3. Writing multithreading programs
- ii. Async tasks
 1. Writing threading programs using Async tasks
 2. Updating UI from worker threads

Lesson 16. Securities & permissions

Lesson 17. Services – extended





तीर्थंकर महावीर विश्वविद्यालय

Teerthanker Mahaveer University

An Ultimate Destination for World Class Education

- i. Exploring more on binder services
- ii. AIDL

Lesson 18. Android Graphics (2D, Animations)

Lesson 19. Media Framework

- i. How to access image gallery files
- ii. How to access SD card files
- iii. Exploring on other media APIs

Lesson 20. Publish App into Play Store

