

MCA371 - MOBILE APPLICATION DEVELOPMENT

Unit-1 : INTRODUCTION TO ANDROID

History of Mobile Apps, Trends in Market-Web App Vs Mobile App- Mobile OS.Introduction to Android and Kotlin: Kotlin Basics –Classes and Objects- Inheritance- Functions – Extension Functions –First Android App – Anatomy of an Android App - Deploying the app: Running and Debugging app in Android Emulator.

Unit-2 : LAYOUT NAVIGATION

Layouts in Android ConstraintLayout - Displaying lists with RecyclerView Multiple activities and intents - App bar, navigation drawer, and menus Fragments - Navigation in an app - Navigation UI.

Unit-3 :ACTIVITY AND FRAGMENT LIFECYCLE

Introduction to Activity-Activity Lifecycle – Logging. Fragment: Introduction - Lifecycle- Task and Back Stack. Android App Architecture - View Model -Data Binding – Live Data- Transform Live Data.

Unit-4 :SAVING USER DATA

Store Data-Room Persistency Library-Asynchronous program- Coroutines-Testing Databases. Introduction to Advanced Binding –Multiple Item View types-Headers -GridLayouts.

Unit-5 : ADVANCED RECYCLERVIEW

Connect to the Internet-Android Permissions-connect to and from Network Resources – Connect to the Web Services-Display Images. Repository pattern – Work Manager – Work Input/Output – Work Request Constraints. App UI Design: Android Styling – Typography- Material Design- Material Components- Localization.