

MTD319 Android Application Development

Level: 3

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY JULY

Synopsis:

MTD319 Android Application Development covers the key principles, tools and basics of Android programming required to develop a mobile application. The course focuses on providing the students with an understanding of mobile technologies and mobile strategies in developing apps for small businesses and enterprises. Making an app location-aware can lead to better user contextual experience due to automated location tracking, activity recognition and geofencing. Students learn how to enhance an application by customising a map and using location-aware API in the mobile app. With the mobile app foundation acquired, students can create mobile apps for their smart solutions project. In the lab sessions, the students program using Android Studio Developer Tool (which is the de facto open-sourced Android Development platform).

Topics:

- The Mobile Ecosystem (Android SDK, Java, Android Studio)
- Android App Components
- Android MVC
- Graphics in Android
- Android App Lifecycle
- Data Management in Android
- Content Providers
- Mobile Usability Design
- Sensor in Android
- Google Location Services
- Google Map API
- Mobile Security

Textbooks:

PACKT Publishing: Android Programming for Beginners - -
ISBN-13: 9781785883262-AA

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Learning Outcome:

- Appraise the life-cycle of an Android application and its key components.
- Examine the use of external resources, manifest files, intents and adapters.
- Evaluate on the usability design for Android.
- Design and build an android application.
- Construct an application that uses persistent storage techniques.
- Create an application that uses phone's features and/or built-in sensors.

Assessment Strategies:

Continuous Assessment Component	Weightage (%)
TUTOR-MARKED ASSIGNMENT	15
TUTOR-MARKED ASSIGNMENT	15
Sub-Total	30

Examinable Component	Weightage (%)
ECA	70
Sub-Total	70

Weightage Total **100**