**Android Development Workshop**

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| ***Android Development Workshop : FOSS@Amrita*** | | | | | | | |
| **Day** | 9.00AM - 10.30AM | 10.30 - 10.45AM | 10.45AM - 12:30PM | 12.30 - 2PM | 2 - 03.15PM | 3.15 - 3.30PM | 03.30 - 05PM |
| 1 | IDE and environment setup [Java, Android Studio installation], Introduction to Android, History and Origins, Latest trends, various ways to create an app | Tea Break | Introduction to Java, JDK and JRE, Sample Hello World Program, Variables and Data Types, Printing, Conditional Statments, Switch | Lunch Break | Loops, Java comments and JavaDoc, File Input (Scanner and FileReader/FileWriter) | Tea Break | Assignment: Given a text file that contains n integers and/or decimals, 1. print the numbers separated by a space, 2. find the sum of all the numbers 3. the average. |
| 2 | Classes and objects in Java, Naming Conventions | Abstract Classes, Inheritance | Exception Handling | Assignment: Create a CLI based Event Registration Java Application |
| 3 | Assignment Review | Interfaces, Generics, ArrayList | HashMap, Stack | Assignment: Create a HashMap of Country Code and Country, find the name of the country using the country code, as well as the Country Code given the name of the country |
| 4 | Introduction to Android Studio, features and shortcuts, getting students familiarized with the IDE | Introduce them to Views, ViewGroups, Android Components, Create Hello World App | Create a basic UI using Android Studio and XML, implementing event handling to control UI elements | Activity Lifecycle, Handling Lifecycle Events |
| 5 | Introduction to ListView, RecyclerView, CardView | Sample App on  ListView and CardView | Sample App on RecyclerView with  animator and decorator | Continue the Previous App Assignment : Simple Todo list app |
| 6 | Connecting to the Internet in Android, Parsing JSON Data using the API provided. | Introduce Retrofit Library | Simple App that fetchs data from the Internet | Introduction to Kotlin and how it is different form Java |
| 7 | Introduction to Flutter and Dart | Few simple Dart Programs | A simple Flutter App | Continue Flutter App |
| 8 | Project | Project | Project | Presentation |