Recess-2013 Introduction to Android Development (IAD) Training Program

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| Week | Day | Hours covered | Topic | Objectives/Comment |
| 1 | 1 | 1 hour  (5TH/6/2013)  [(David Bamutura year 2) (10:00am-1:00pm, 2:00pm-3:00pm)]  [(Paddy Asiimwe Jr year 1) (10:00am-12:00pm, 6:00pm-8:00pm)] | * Contact * Students Expectations * General introduction to Mobile App Development | * Why Mob App * Use of them * Different OS * Global Market/ Current |
| 1 | 1 | 2 hours  (5TH/6/2013)  [(David Bamutura year 2) (10:00am-1:00pm, 2:00pm-3:00pm)]  [(Paddy Asiimwe Jr year 1) (10:00am-12:00pm, 6:00pm-8:00pm)] | * Introduction to Android * Anatomy of an Android Application * Android Application Life Cycle | * Android overview * History of Android * Development Environment Installation * Android Emulator Basics & Limitations * Other tools: adb,ddms * Ingredients if an Android App * Understand Life Cycle of an Android App |
| 1 | 2 | 2 hours  (6TH/6/2013)  [(Grace Kamulegeya year 2) (10:00am-1:00pm, 2:00pm-3:00pm)]  [(George Albert Bitwire year 1 ) (10:00am-12:00pm, 6:00pm-8:00pm)] | * User Interface Basics * More UI Part 1 | * UI Elements; Views * XML UI Configuration * Layouts * Example * Lab 1 * Dialogs, Fragments, Alerts, Custom Dialogs and Listeners * Android Support Library (ASL) |
| 1 | 2 | 1 hour  (6TH/6/2013)  [(Grace Kamulegeya year 2) (10:00am-1:00pm, 2:00pm-3:00pm)]  [(George Albert Bitwire year 1 ) (10:00am-12:00pm, 6:00pm-8:00pm)] | * More UI Part 2 * UI Design Principles and Patterns | * Menus: Options & context menus , Action Bars * Sstyles * Gestures; Gesture types Touch, Long press, swipe, fling and their Handling * Example: Animal Sounds App |
| 1 | 3 | 3 hour  (7TH/6/2013)  (Albert Bayita year 2)  [(Bridget Magoba year 1)  (10:00am-12:00pm, 6:00pm-8:00pm)] | * Intents | * The Four Common Application Components; Activity, Service, Content Providers, Broadcast Receiver * Example on Using an Intent * Intent Resolution i.e implicit versus explicit using filters |
| 2 | 1 | 1 hour  (10TH/6/2013)  [(David Bamutura year 2) (10:00am-1:00pm, 2:00pm-3:00pm)]  [(Paddy Asiimwe Jr year 1) (10:00am-12:00pm, 6:00pm-8:00pm)] | * Audio * Responsiveness | * MediaPlayer; MediaPlayer State Diagram * Playing Audio from Phone (IAD) * Playing audio from Remote URL (AAD) * Optimisation and effects * Example RandomArt App * Problem: poor responsiveness especially by Blocking Operations * Solution: Threading; AnsyncTask, Loaders |
| 2 | 1 | 2 hour  (10TH/6/2013)  [(David Bamutura year 2) (10:00am-1:00pm, 2:00pm-3:00pm)]  [(Bridget Magoba year 1) (10:00am-12:00pm, 6:00pm-8:00pm)] | * Persistence | * Saving State, Storing Data * Shared Persistent * Internal Storage * Writing & Reading Files; File Types; Static, cache * External storage; SQLite Database * Remote storage over network |
| 2 | 2 | 1 hour  (11TH/6/2013)  [(Judas Tadeo year 2) (10:00am-1:00pm, 2:00pm-3:00pm)]  [(Albert Bitwire year 1) (10:00am-12:00pm, 6:00pm-8:00pm)] | * Android and the Web | * WebView * Example * Web Services * WeatherBug Example * Learn about JSON and how to use it as an alternative to XML for data Interchange * Parsing JSON * Lab 5 |
| 2 | 3 | 2 hours  (11TH/6/2013)  [(Judas Tadeo year 2) (10:00am-1:00pm, 2:00pm-3:00pm)]  [(Paddy Asiimwe Jr year 1) (10:00am-12:00pm, 6:00pm-8:00pm)] | Location | * Why Location * Location Determination Techniques * GPS pros and cons * Wi-Fi and Location * Google Location Services * Understand properties of Location Providers and choose the most optimal solution * Example * Bearing Determination * Dev Phones |