



Accelerating Information Technology Innovation

<http://aiti.mit.edu>

Lecture 1: Introduction to Android!

AITI Nigeria Summer 2012

Android Class Agenda

- Part 1:
 - Introduction to the course
 - Overview of android smartphone capabilities
 - Work through “Hello World” Android application
- Part 2 :
 - Assessment: Creating Android calculator app

Introduction

- The Android lecture series will span the next week followed by python.
- Create Android app in groups of 5.
- The final project of the course will be:
 - A Presentation + Demo of your android application at the Pitch Showcase
 - Website advertising your product
 - Short writeup.

What is Android?

- Google's operating system for mobile devices
 - Open-source
 - Free
 - International
 - Java-based
 - Hardware cross-compatible (HTC, Motorola, LG, Samsung, Huawei, ...)

WHAT ANDROID CAN DO...

Example applications

- Soundhound
- GPS based weather
- barcode scanner
- Google Skymap
- gmote

Hardware capabilities

- GPS
- Wifi + 3G, Bluetooth
- Gyroscopes and accelerometers
- Light, Magnetic, Proximity, Temperature, Pressure, Sensors
- Still and video cameras
- External Storage (SD card)

Software Capabilities

- 2D/3D Graphics
- Built-in SQL Database
- Gesture detection, Multi-touch
- Text-to-speech, speech recognition

Why do this course?

- Nigeria has the infrastructure for smartphones
 - Samsung is bringing cheap Android phones to Nigeria – Galaxy Pocket
 - Google is expanding in Nigeria - rapidly
 - Nigeria has fairly decent 3G coverage throughout many areas
- Be the first in Nigeria to build businesses on the Android platform!

Opportunities

- Opportunity to develop and **monetize** applications for Android Market
- Opportunity for **social impact** through smartphone apps
- Timing: You are going to be the first in Kenya to develop Android apps!

Monetization

- Three ways to make money with Android Apps:
 - Sell the application on the Android Market
 - Offer the application for free on the Android Market and include small ads
 - Sell through your own website, outside of the Android Market

Areas of Potential Impact

- Health
- E-Government
- Transportation
- Environment
- Education / Learning
- Finance / Money
- Productivity (make things easier/faster)

Potential Customers

- Individuals (with Android phones)
- Government
- Businesses

**Enough said... let's start
having some fun!**