EE5415
Mobile Applications Design and Implementation

Form2B
http://www.cityu.edu.hk/pg/current/course/EE5415.htm
Course Description

- This course aims to provide students with an understanding of the principle and hand-on experience on design and development of Android Applications.

- Students will learn skills leading to creating and deploying Android apps, with particular emphasis on software engineering topics including software architecture, software process, usability, and deployment.
What is Android?

- Android is a software stack for mobile devices that includes an operating system, middleware and key applications.
Why Android?

- Which one is your favorite?

iPhone 5 (Apple iOS)  
Galaxy Note II (Android OS)  
Nokia Lumia (MS Windows 8)  
Blackberry 10 (RIM Blackberry OS)
Android Leads in U.S. Smartphone Market Share (Q3 2012)

Top U.S. Smartphone Operating Systems by Market Share
Q3 2012, Nielsen Mobile Insights

- Android: 52%
- Apple iOS: 35%
- Others: 2%

- 19% in Q1 2010
- 35% in Q1 2010
- 28% in Q1 2010
- 2% in Q1 2010

Read as: During Q3 2012, 52% of smartphone owners had a handset that runs on the Android operating system.

Source: Nielsen

Android Devices in the Market

- Android devices come in all shapes and sizes. Currently, the android OS powers the following types of devices:
  - Smartphones
  - Tablets
  - E-reader devices
  - Netbooks
  - MP4 players
  - Internet TVs
Android Tablets (7.x to 10.x inches)

- Samsung Galaxy Tab 7.7-inch
- Nexus Tab
- Nook Tablet
- Kindle Fire
- Samsung Galaxy Tab 10.1
- Asus Transformer Pad Infinity
Android Phablets (5.0 to 7.0 inches)

- Phablet is an informal term for touchscreen devices with screens that are between 5 and 7 inches. These devices combine the capabilities of a smartphone and mini tablet.

  
  Samsung Galaxy Note  
  Nov. 2011  
  5.3-inch screen

  Samsung Galaxy Note II  
  Aug. 2012  
  5.55-inch screen

  HuaWei Ascend Mate  
  Jan. 2013  
  6.1-inch screen
Many Android Devices

- Samsung Galaxy Camera
- Android Smart TV
- Android TV Box
- Android Toilet
Main Feature of EE5415

- Students will build their own Android Apps for smartphones or Tablet.

- Lab exercises are provided to pickup the fundamental concepts and skills for design and development of Android Apps.
Course Project

- Students will work in teams to implement and deploy Android Mobile apps of their proposed applications.

- Each team is expected to apply best software development practices such as using software configuration management, and select appropriate supporting tools.