

CSCI3310

Mobile Computing & Application Development

Dr. CHUI Yim Pan

Computer Science & Engineering Department

The Chinese University of Hong Kong

Objective

- To understand **issues uniquely related to mobile** (or ubiquitous) computing
- To learn **mobile OS architecture** and its application development with focus in Android
- To learn **programming paradigms** for doing hands-on **mobile computer programming**



Prerequisites

- You should have studied data structure & algorithms course
- Solid Java programming experience
- Understanding of object-oriented concept

Personnel

Instructor

CHUI Yim Pan (ypchui@cse.cuhk.edu.hk),

Student Consultation

– Mon 14:00 – 16:00

Zoom Meeting (on appointment)

– cuhk.zoom.us/j/96684888237

TA

ZHAO, Yuxuan (yxzaho21@cse.cuhk.edu.hk)

CHEN, Guojin (gjchen21@cse.cuhk.edu.hk)

Course email: csci3310@cse.cuhk.edu.hk

Venue and time

	Slot	Time	Venue
Lecture	T7-8	Tue 2:30pm – 4:15pm	Science Centre L3
Lecture	W5	Wed 12:30pm – 1:15pm	Humanities Building 114
Tutorial	W6	Wed 1:30pm – 2:15pm	Humanities Building 114

Some of the tutorials might be converted to **software lab**.

If necessary, **double-session** lab might be arranged. Note the announcement.

Topics

- Aspects in app development
- Android Platform
- User Interface & Graphics
- Global/Local Positioning
- Security issues

(Optional)

- Sensors, Performance & Power, Kotlin etc.

Teaching material

- Lecture presentation slides are the main teaching materials.
- **No Textbook**

Assessment

Participation (by uReply since week 3)	5%
Programming assignments (x 3)	35%
Term-end Quiz	30%
Group Project (2-3 teammates)	30%

Quiz date (tentative): **following the reading week**

- Time & Venue: **to be announced**

Project 2-phase Schedule (tentative):

- Proposal: **around term middle**
- Final submission: **before semester end**

Academic Honesty

- **NO PLAGIARISM 嚴禁抄功課**
 - No copying from others
 - No “*lending*” your work to others
 - <http://theory.stanford.edu/~aiken/moss/>
(for your eyes only)
- Every plagiarizing case will be reported to the Faculty.
- Read also:
 - <http://www.cuhk.edu.hk/policy/academichonesty> (CUHK)
 - <https://www.erg.cuhk.edu.hk/erg/AcademicHonesty> (ERG)

Announcements & Assignments

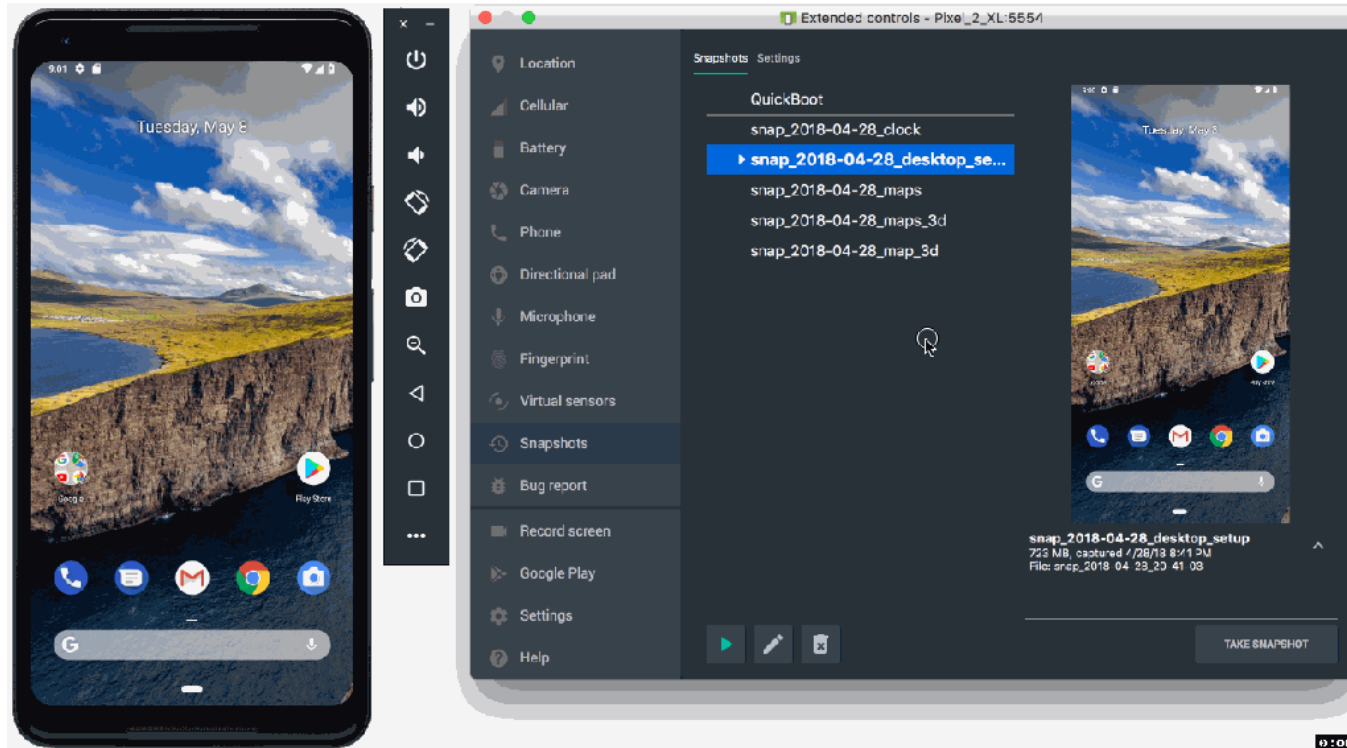
- We are using Blackboard System as the main platform for communications
<https://blackboard.cuhk.edu.hk>
- Lecture notes, assignments & announcements are all made available through Blackboard
- Forum is also used for course related discussions

Facilities

- For Android development, we use Android Studio as the official IDE
 - <https://developer.android.com/studio>
- Basically you can do it on your own PC or department PC lab
 - Android Studio 3.2.1 is installed in our department userapps share
- Physical Android Device is recommended but not required.
 - Budget Android tablet can be found here:
<https://www.androidauthority.com/cheap-android-tablets-268082/>

Facilities

- Android Studio download Archive
 - <https://developer.android.com/studio/archive.html>



Reference

- Android Developer Portal
<https://developer.android.com/guide>
- News blog dedicated to providing expert tips, news, reviews, Android Apps, Android Phones/Tablet, Rooting & Howtos
<https://www.androidauthority.com/>
- Most important is trying on the **sample programs** from the above resources, which is the only way to learn in a programming world!