MOBILE PROGRAMMING: ANDROID

Introduction to module

ABOUT ME

- Nguyen Van Cong
  (Dennis Nguyen)

- Research interests
  - Software architectures
  - Knowledge Representation & Applications (ML, NLP
  - Application generation
  - Web technology

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MORE ABOUT YOU?

- Which OS do you prefer: iOS or Android?
- What's your favorite mobile app?
- What do you like most about it?
- What's your least favorite mobile app?
- What do you dislike about it?
- How do mobile apps connect to Internet-based services for end users? (Cost implications)
- How to capture data from on-device sensors (e.g., GPS, accelerometer)?

OUTLINE

- Module Objectives
- Assessment
- Cheating policy
- Weekly schedule

- Feedback
- Debugging your code & Asking a good question

MODULE OBJECTIVES

- Understand characteristics of mobile apps
- Understand frameworks for mobile app dev.
  - Deep dive: Android framework
  - Device programming: Java
  - App components: design mobile UI, connect to Internet services, use on-device sensors
- Understand design principles for mobile apps
  - Design apps for ease of maintenance
  - Make apps fast, responsive (60 frames/sec goal)

ASSESSMENT

- *See module syllabus*

DISCUSSION

- Facebook:

"Hanu FIT – NHóm học MPR – Mobile Programming"

- Q& A, Discussion

  → SCORE FOR GOOD QUESTIONS & ANSWERS

- Upload your improved App with #I'm Android developer

  → SCORE FOR TOP STUDENTS

KEYS

Practice makes Perfect!

- Don't delay your problem → Get Help

CHEATING POLICY

- Cheating in the context of this course is generally, but not limited to, sharing and copying of code from other students or the Internet.
- Any code making up your solution should be written and understood by you.
- Small quantities of template code will at times be provided by the instructor. You can use this code in submissions but should still be able to fully explain the function of all template code you use. Refer to but do not copy code from the examples given in class.

MATERIALS

- *See module syllabus*

WEEKLY SCHEDULE

- *See module syllabus*

NOTE

Ready for updates!

- This is the 1st time we run this module
- Every thing can be changed, even what I just mentioned above
- All the updates will be notified to students

FEEDBACK

https://docs.google.com/spreadsheets/d/1Pr5WQLieFHMIpNxROcnutPziqFbV34nLxSoOWaFoB0k/edit?usp=sharing

- Anytime during the semester
- Google docs
- Suggestions about content, teaching method
  - (sheet 1)
- Errors or bug in provided source code
  - (sheet 2)

DEBUG YOUR CODE

- Check your error messages
- Remove all the code you just added until it works again, and then add it in line by line
- Compare your code against my demo code – see what is different and see if that is causing the problem

FIND SOLUTIONS ONLINE

- Google the specific error message, along with the name of the programming language
- Google “How do I…”

ASK GOOD QUESTIONS

- Be positive!
- Be specific – give the few lines of code that are causing the problem (not a massive code dump!)
- If possible, give a link to your code in action, either on your web hosting or on *jsbin.com* or another site
- Thank someone if they've helped you
- While you are there, answer someone else's questions

REFERENCES

- [1] “The Complete Android N Developer Course,” *Udemy*. https://www.udemy.com/course/complete-android-n-developer-course/ (accessed Jun. 11, 2020).