



iPhone Application Programming

Lab 5: Final Project Kick-off



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<http://hci.rwth-aachen.de/iphone>

A05 Review

- Great work, but needs a little more work!
 - Buttons not working!
 - Unresponsive apps, e.g., using main thread for data reading/writing!
 - No default data in the app!
 - Visual design lacking!
 - Check if camera source is available and give the right response if not
 - Separate your code, every screen should have its own view controller
 - Images content mode must be AspectFit
- Deadline **extended until Wednesday 9.12. 10:00pm** (optional: only if you feel you can do better)

Final Project

- You can develop any app you wish!
- With a few conditions...
 - Team size: 4! only one team can be 5
 - Theme: health
 - Constrain: should allow multi user, 2 or more, multi-use (sync) communication through your app

Health



- iPhone sensors
 - Core Motion Guides
 - CMPedometer to retrieve step counts and other information about the distance traveled and the number of floors ascended or descended
 - CMAccelerometerData provides a measurement of acceleration along the three spatial axes at a moment of time
 - CMGyroData provides a measurement of the device's rotation rate
 - Manometer, altitude (hiking), more in lecture S08
 - Watch WWDC '14 Core Motion!
- HealthKit
 - Store your data
 - Statistical calculation on data
 - Share your data

The theme is fixed! But you can choose to include iPhone sensors and do the motion tracking yourself, **and/or** use the HealthKit for data retrieval and storage

App Type

- Immersive app, e.g., game or challenge
- Chat app
- Music app
- Utility app, e.g., note book, calendar, reminder, tracker...
- Health Journal app with images, maps,

One Last Thing

- Your app should be energy efficient. Read about energy efficiency for iOS
- Your app should be responsive. Read about concurrency programming
- I will consider the structure (MVC and data types) of your app and documentation in the final grade
- Your app should be visually appealing
- Make your data and UI persistent (JPK's lecture)
- Use size classes and adaptive layouts
- Include a launch file, and required icons
- Check your terminology
- Check for colors and typography (use dynamic type)

How to Proceed?

- Form your teams
- 12 min. brainstorming
- Prepare a rough poster and describe your initial idea to the class, get feedback
- Refine your idea
- Send me a description, screens, list of features (use the guidelines in HIG: From Concept to Product)

Optional: Github
for code for
collaboration

Project Timetable

Optional: Slack
for team
communication

1	07.12.	Kick-off
2	14.12.	Send idea to Nur (<u>format</u>)
3	21.12.	Data model
4	28.12.	Main screens
5	04.01.	Event handling
6	11.01.	Working prototype (Send to Nur)
7	18.01.	Is your app responsive?
8	25.01.	Is your app energy efficient?
9	01.02.	Is your app visually appealing?
10	08.02	Send app to Nur
11	09.02	Presentation