

Homework Week 8

Due: June 4

The purpose of this assignment is to demonstrate your understanding of building apps that use CoreData and many of the other topics we've covered in class including Bluetooth.

- Follow the [Human Interface Guidelines](#) when designing your app's UI

Functional Requirements

The app should consist of:

- An app built using the Master/Detail template for iPhone or iPad that
 - Implements the iMHere Student app flow (**see Homework8.pdf**)
 - Uses a backing store created with CoreData that has two entities
 - Student
 - Name
 - Id
 - Picture (use an external file for storage)
 - Attendance
 - Class Date
 - ConfirmedWithBluetooth(Boolean)
 - It would be great if you would create a one-to-many relationship between student and attendance but this is not required to complete the assignment.
 - Implements a method to capture an image and text to fill into the Student table entity
 - Uses Bluetooth Central functionality to access the iMHere Teacher App and register your attendance by virtue of having detected the Teacher app. I will post the source for the Teacher app.
 - Has an optional feature to send the contents of the attendance entities as an email
 - **Note: The feature of uploading your image to the teacher app is no longer in-scope as we didn't discuss how to do more than 20 byte data transfers over Bluetooth.**
 - **Note 2: In order to keep the payload under 20 bytes, I've changed the value to write to Service/Characteristic 0xFFF4/0xFFF6 (see below)**

The information about how to talk with the Teacher app is also below

iMHere Student App Bluetooth Interface

- Teacher app
 - Bluetooth peripheral
 - ID: iMHere_CP130UW
 - Services
 - ClassID Service 0xFFFF0
 - Characteristics
 - 0xFFFF1 - Read
 - ID of class (e.g. CP130-UW)
 - 0xFFFF2 - Read
 - Instructor name (e.g. Michael Lehman)
 - Attendance Service 0xFFFF4
 - Characteristics
 - 0xFFFF5 - Read
 - Current time
 - 0xFFFF6 - Write
 - Student Present
 - JSON
 - {"S": "12345678"}
 - (where 12345678 is your UW NetID)