Day 8: Design

Donkoro, do NOT forget to bring in the circuitry…

Goals:
- Work on revising the software elements of the requirements documents.
  - Personal baselines
  - More specific data transfer reqs.
- Begin working on the software elements of the design document.
- Test preliminary code for the SD card module. (See https://lastminuteengineers.com/arduino-micro-sd-card-module-tutorial/)

Accomplishments:
- Added baselines and added more specific requirements for data and front end
- Tested SD card, doesn't work at the moment…
- Started on some of the app code: (on group github: Ionic app base w/ BLE community plugin)
- Began writing some pseudo code that would be useful to transfer to design:

Pseudo code for Arduino:
In setup:

    Take an initial time as the start time
    Set up all the sensor information, SD card.

In the code loop:

    If 5 minutes have passed since the start time:
        If valid reading (number of beats complies with req. doc)
            Record the current value for HRV to the SD card/persistent storage
            Attempt to send records to the Application
        Else:
            Send Error signal to Application

    If there is a peak, calculate the new HRV (using an iterative version of the formula in the req. document)

```
Initializing SD card...initialization failed. Things to check:
* is a card inserted?
* is your wiring correct?
* did you change the chipSelect pin to match your shield or module?
```

Day 9: Design 2

Wednesday, July 26, 2023   10:07 AM

Goals:
- Work on the Design (pseudo code for App software and define variables needed for project)
- Try to work on making the SD card module function
- Begin testing some integration between Arduino and App.
- Do the team assessment
- Figure out needed items and if we do a PCB. (Due at 1pm!!)