Dynamic Noise and Pollution Campus Map

/progress report/

Work Done Previous Week

- visualise data (simulation): https://github.com/ppyordanov/Dynamic-Noise-and-Pollution-Map/issues/10
    - set up a VC pair (view-controller) to use the parsed JSON models and display them on different locations around the university campus map
    - display additional information to the system user (data readings and battery status):
        - CO
        - NO2
        - Noise
        - Battery status
    - scaled the data, defining maximum values for the relevant measures and displayed it visually in bars; color-coding, etc. can be applied to improve interpretation and usability
- updated wiki (added new sections to improve overall system documentation and project structure)
- researched CO, NO2 and noise data scaling: https://github.com/ppyordanov/Dynamic-Noise-and-Pollution-Map/issues/47
- researched data formatting (CO and NO2 are raw sensor values at the moment, displayed in kilo Ohms) -> the standard requires them to be in *ppm : https://github.com/ppyordanov/Dynamic-Noise-and-Pollution-Map/issues/48
- code refactoring
    - optimised controller
    - improved JavaScript data processing

Work Under Way

- test multiple visualisation styles
- build up on the user interface of the mobile web app

Known Issues + Resolutions

- contacted the SCK team regarding NO2 and CO data formatting and they responded promptly with details; the idea behind using raw data (kilo Ohms resistance) is to ensure that when conversion to *ppm is used the sensors are going to be calibrated according to the surrounding environment and Fab Lab are working on a solution to this at the time being

- VC pairing for main controller and home view took a lot of trial and error as data needs to be passed (after being parsed into models) to the client-side code .jsp file and then accessed by JavaScript for populating a data structure in the script and visualizing this information on the map canvas

- map infoWindow() instances content getting overwritten leading to same data being displayed for each data reading -> resolved by using function closure, transfering marker generation in a separate function after thorough research on the issue

**PPM – parts per million*

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