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From: BEST (Beacon-based Evacuation System and Technology)

Bacon Beacon

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Summary

Sent Dr. Matson the list of orders of equipment. Each unique role was assigned to a specific task. And focused on paperwork, such as searching the internet for several articles and preparing the team presentation for the next week's conference. And also, drafted the "Abstract" and the "Introduction".

What "BEST" completed this week

- Assigned the job.
 - Hwawon Lee (Project Manager / Beacon Programming)
 - Yoonha Bahng (Writing the paper / Server Programming)
 - Dohyun Chung (iOS Programming)
 - Jiwon Lim (Android Programming)
 - Suhyun Park (Writing the paper / Android Programming)
 - Seongmin Kim (Server Programming / Beacon Programming)
- Determined the project name
 - BEST (Beacon-based Evacuation System and Technology)
- Made the list of orders of equipment
 - Raspberry Pi (Beacon & Fire Alarm)
 - Arduino & ESP32 (iBeacon)
 - Access Point (Control every device at same time)
 - Temperature Humidity Sensor (for Raspberry pi 2, 3)
- Prepared for the Mid presentation
 - Hwawon Lee started with the PowerPoint
- Technical details
 - Instead of using Database (DB), used Comma-Separated Values (CSV)
 - The Hypertext Transfer Protocol (HTTP) type will be used in the fire alarming system, and the rest of the functions, such as beacons and localization, will be implemented utilizing the socket

- Uploaded the server program to Amazon Elastic Compute Cloud (EC2) after testing on the localhost
- Succeeded on socket connection between server and client. (Yoonha Bahng, Dohyun Chung, Seongmin Kim, Jiwon Lim)
- Developed the Bluetooth Low Energy (BLE) beacon using ESP32, ESP8266
- Developed the Wi-Fi beacon using Raspberry Pi and DHT11 (Hwawon Lee)

Things to do by next week

- Writing Abstract of Paper
- Writing Introduction of Paper – Looking for references
- Individually organize the papers and allot the reference to teammates
- Discuss about our novelty and researching related papers

Problems or challenges:

- Server problem and solution: Had a problem with the IP address in UNIX-based operating system. Solved by using EC2.
- Beacon problem: First and foremost, attempted to use the laptop as a beacon but failed. Eventually worked out how to use the Raspberry Pi as a beacon, rectified the problem, and were able to connect to the client successfully.

Reference