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

Bacon Beacon

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### Summary

We created a list of the equipment we would use and sent Professor Eric an email requesting to purchase everything. We also assigned a task individually. We were all content with our unique roles after that. And also concentrated on the paperwork. We looked up several articles on the internet and prepared a presentation about what we searched.

### What “BEST” completed this week

- Assigned a 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 a list of equipment to buy
  - Raspberry Pi (Beacon & Fire Alarm)
  - Arduino & ESP32 (iBeacon)
  - Access Point (Control every device at same time)
  - Temperature Humidity Sensor (for Raspberry pi 2, 3)
- Prepare 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
- Succeed on socket connection between server and client. (Yoonha Bahng, Dohyun Chung, Seongmin Kim, Jiwon Lim)
- Developed the Bluetooth Low Energy (BLE) beacon using Raspberry Pi (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: We had a problem with the IP address in UNIX-based operating system. We used EC2 to solve it.
- Beacon problem: First and foremost, we attempted to use the laptop as a beacon but failed. We 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**