**Names & Roles:**

Marcel Klibansky Lopez: QA Tester

Karolina Herrera: System Design Analyst

Ulrike Tovilla : Project Manager

Aastha Gupta: Business Analyst

Frambert Jolteus : Developer

**Team Name**: Raspberry Emergency

**Project Title**: Emergency Room Tracker.

**Date & time of meeting:**

01/14/2025 @ 9PM

**Summary of what we discussed:**

* Discussed different project possibilities
  + Parking Garage Dashboard
  + Home automations
  + Emergency Room Capacity
* Team Name
* Team Roles
* Project Title
* Worked on deliverables for project proposal
* Distribution of work
* Future meeting

**Summary of Project:**

Emergency rooms often face the challenge of managing patients' expectations when it comes to providing real time information about wait times and room capacity. Our project's objective is to improve patients' experience as well as operational efficiency of emergency rooms by designing a capacity tracking systems using the Raspberry Pi Pico and Python object-oriented design.

**Problem to solve:**

Our device will integrate hardware and software components to:

* **Track entries**: A proximity sensor will detect when a patient enters the room, increasing the room’s capacity.
* **Alert staff**: A passive buzzer will emit a sound each time the capacity count is updated.
* **Display Information**: An LCD screen shows the current capacity and estimated wait time.
  + Since we would need historical data about average wait times to calculate the estimated wait time, as proof of concept and demonstration, we will use an arbitrary realistic number for the average wait time per patient (e.g. 5 min). This number will be multiplied by the total number of patients in the room to determine the estimated wait time. The only exception will be if there is only 1 patient, since this person would still have a 0-minute wait.
* **Indicate Capacity Levels visually**:
  + Red LED: Room is at full capacity.
  + Yellow LED: Room is at medium capacity.
  + Green LED: Room is at low capacity.
* **Manage counts efficiently:** Two buttons allow the staff to either subtract count to the total or completely reset it to zero.

**Business Impact:**

This device will streamline patient management, enhance trust in the healthcare facility, and provide real-time data to both staff and patients, leading to improved overall efficacy in the emergency room operations.

**GitHub repo**: <https://github.com/mklib54/Emergency_Room_Tracker.git>

**Class Diagram:A screenshot of a computer

AI-generated content may be incorrect.**