ZealandClimate User Story

We created thsese user stories as per task description.

# User Story 1

## ZealandClimate - Room Registration and Measurement Recording (v1)

**As a:** Zealand Facilities Staff **I want to:** be able to register rooms and record sensor measurements (temperature, CO2, number of people)  
**So that:** I can monitor and control the climate in each room for optimal comfort and safety.

**Acceptance Criteria:**

* **Rooms:**
  + I can register a new room with a unique ID, room number (e.g., D.3.06), and maximum capacity (maxNumber of people).
  + I can view a list of all registered rooms with their details.
* **Measurements:**
  + I can record a new measurement for a specific room, including:
    - Unique ID for the measurement.
    - Timestamp of when the measurement was taken.
    - Temperature value.
    - CO2 level.
    - Number of people currently in the room.
  + I can view a list of all recorded measurements for a specific room.

**Future Considerations:**

* Integrate with sensor data feeds for automatic measurement recording.
* Develop functionalities to analyze and visualize measurement data.
* Implement alerts for exceeding CO2 levels or temperature thresholds.

**Notes:** This is a user story for the first version (v1) focusing on basic room registration and measurement recording. The future considerations section outlines potential features for further development.

# User Story 2

## ZealandClimate - Room Registration and Measurement Recording

**As a:** Facility Manager at Zealand Business Academy **I want:** to register rooms and record sensor measurements from those rooms **So that:** I can monitor the climate conditions and ensure a comfortable learning environment.

**Acceptance Criteria:**

* **Rooms:**
  + I can register a new room with a unique ID, room number (e.g., D. 3.06), and maximum capacity (maxNumber) of people the room is designed for.
* **Measurements:**
  + I can record a new measurement with a unique ID, timestamp (time of measurement), room ID (indicating which room the measurement was taken from), temperature value, CO2 level, and number of people currently in the room.

**Notes:**

* The system should ensure each measurement has a unique ID to avoid duplicates.
* Timestamps should be automatically generated by the system at the time of recording.

This user story focuses on the initial functionalities of registering rooms and recording measurements. Future stories can be created to address functionalities like displaying data, generating alerts, and controlling climate systems based on the collected data.

# User Story 3

## Develop ZealandClimate Prototype for Comfortable Learning Environment

**As a:** Facility Manager at Zealand - Zealand's Business Academy **I want:** a program called ZealandClimate to be developed **So that:** I can monitor and manage the climate in our classrooms to ensure a comfortable learning environment.

**Acceptance Criteria:**

* The system can register measurements from sensors installed in each room.
* Each measurement should include:
  + Unique ID
  + Timestamp (time of measurement)
  + Room ID (where the measurement was taken)
  + Temperature
  + CO2 level
  + Number of people in the room
* The system can store information about each room, including:
  + Unique ID
  + Room number (e.g., D.3.06)
  + Maximum occupancy (number of people the room is designed for)

**Additional Notes:**

* This is the first version (prototype) of ZealandClimate.
* Future versions may include features to control room temperature and ventilation based on sensor data.