Functional requirements

1. The system must display the co2 levels, temperature and humidity of a specific classroom where the device exists.

2. The system must generate a report about the collected data in a specific classroom.

3. The system must visualize live data collected from the sensors.

4. The system must generate a co2 warning that warns the user when carbon dioxide levels in the classroom are above the normal levels.

5. The system must save warnings history (when that happened, in which classroom).

6. The system must analyse co2, temperature and humidity data.

7. The system must respond to high co2 level by opening a window automatically.

8. The system must allow admin to add a new user.

9. The system must allow admin to remove user.

Non-Functional Requirements

1. The system must collect data 24/7 in order to make a comprehensive report.

2. The system must respond to searches within 2 seconds.

3. The system must be implemented in Java and C.

4. The system must use business intelligence tools to analyse data.

5. The system must be able to transfer data using Lora Wan.

6. The system must be able to expose data using web services.

7. The system must be able to make an analysis of the data and create reports.

8. The system must be able to provide a responsive user interface.

9. The system must be able to authenticate user.

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User stories

As an admin I want to add users to the system so that all the teachers will have access to the app

As an admin I want to delete a user so that I make sure that no one can access the app without my permission

As a user I want to check CO2 levels in the classroom so that I ensure the best IAQ for my students

As a user I want to check the temperature in the classroom so that I ensure the best IAQ for my students

As a user I want to check the humidity in the classroom so that I ensure the best IAQ for my students

As a user I want to see a diagram about CO2, temperature and humidity levels in the classroom so that I ensure the best IAQ for my students

As a user I want to read a report about CO2, temperature and humidity levels in the classroom so that I ensure the best IAQ for my students

As a user, I want to be notified if the CO2 level is too high so that I gave the students a small break to get a fresh air.

As a user I want to check warnings history so that I can see where that happened and when