Functional requirements

1. The system must display the co2 levels, temperature and humidity of a 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 current data collected from the sensors

4. The system must generate a co2 alarm that warns the user when carbon dioxide levels in the classroom are extremely high

5. The system must save alarms history (when that happened, in which classroom, how many students were there

6. The system must provide the user with the best-recommended action depending on co2 alarm’s level.

7. The system must analysis co2, temperature and humidity data

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

9. The application must allow admin to add a new user

10. The application 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 us