Project Proposal Submitted
To
IBM NAAN MUDHALVAN

INTERNET OF THINGS

Submitted by

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Noise pollution monitoring in Tamil Nad
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Project Title: Noise pollution monitoring system TN

Problem Statement: Noise pollution is a significant problem in Tamil Nadu, leading to various health issues and a decrease in the overall quality of life. Currently, there is a lack of effective monitoring and control measures in place to address this issue. Therefore, there is a need to develop an IoT-based noise pollution monitoring system in Tamil Nadu to accurately measure and analyze noise levels in different areas and take appropriate actions to mitigate the problem.

Solution: The proposed solution is to develop a network of IoT-enabled noise sensors that will be strategically placed across Tamil Nadu to continuously monitor noise levels in real-time. These sensors will be equipped with microphones and connected to a central server through wireless communication to collect and transmit noise data.

PHASE 1: PROBLEM DEFINITION DESING THINKING

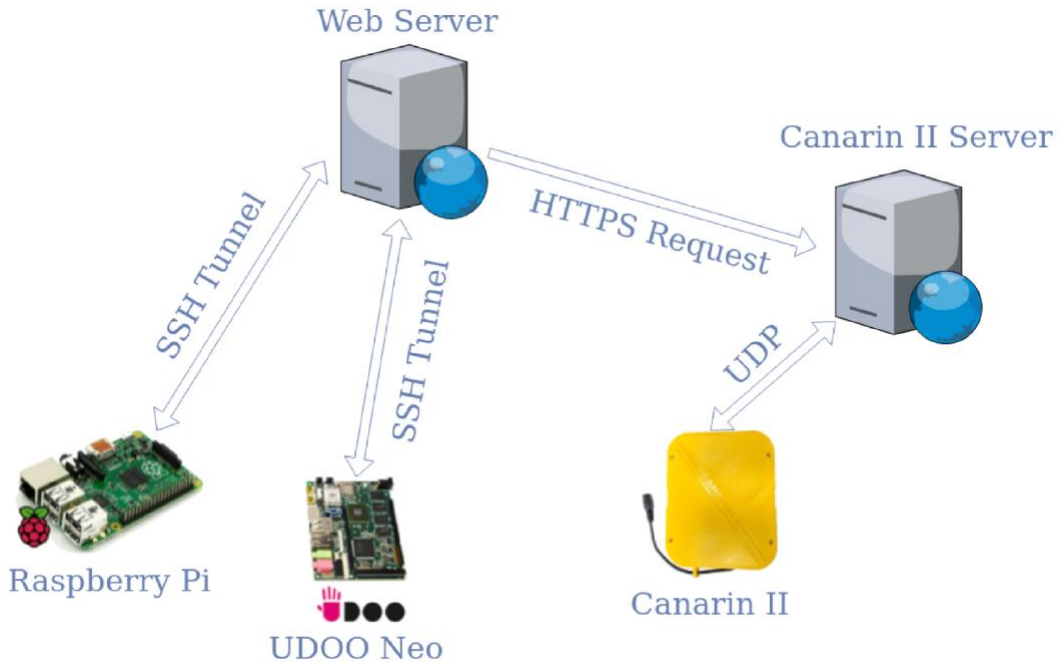
Design thinking: Designers need to empathize with the people who are affected by noise pollution, such as residents living near busy roads or airports. By understanding their experiences and frustrations, designers can create solutions that truly address their needs.

key components and design: 1. Sound Level Meters
2. Data Logging
3. Frequency Analysis
4. Real-time Monitoring
5. Geographic Information System (GIS) Integration
6. Remote Monitoring

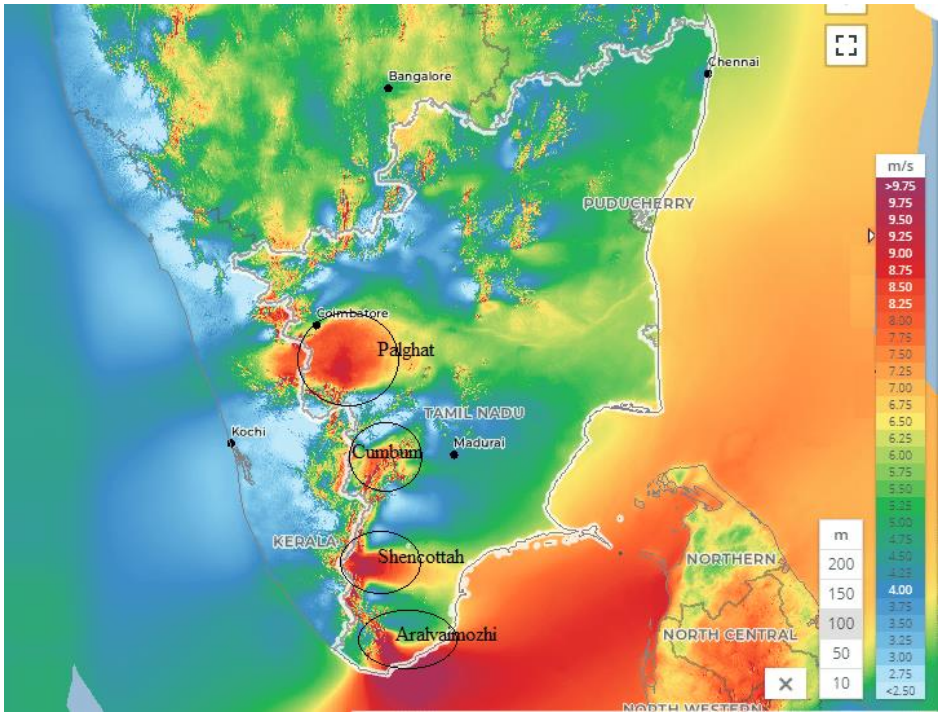
Overall, the design of a noise pollution monitoring system should consider accuracy, reliability, scalability, and ease of use.

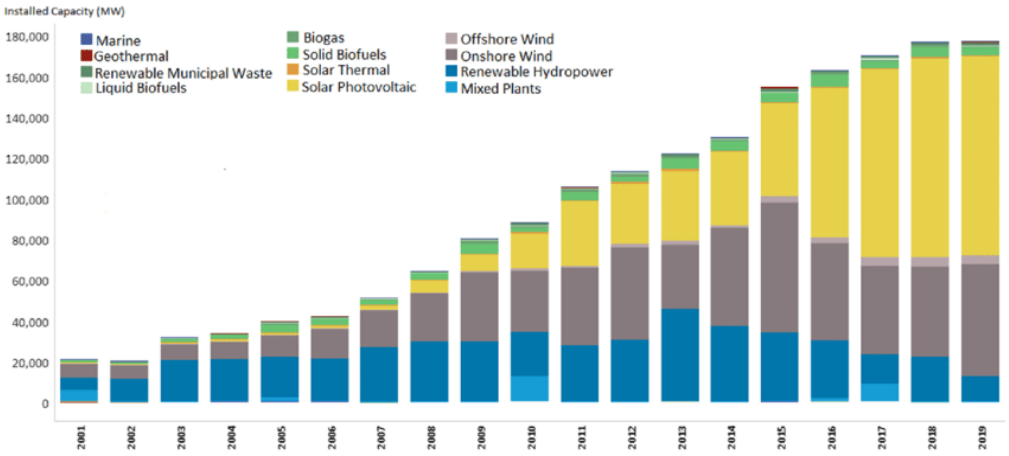
Visualization strategy: One possible visualization strategy for a noise pollution monitoring system could be a real-time heat map.

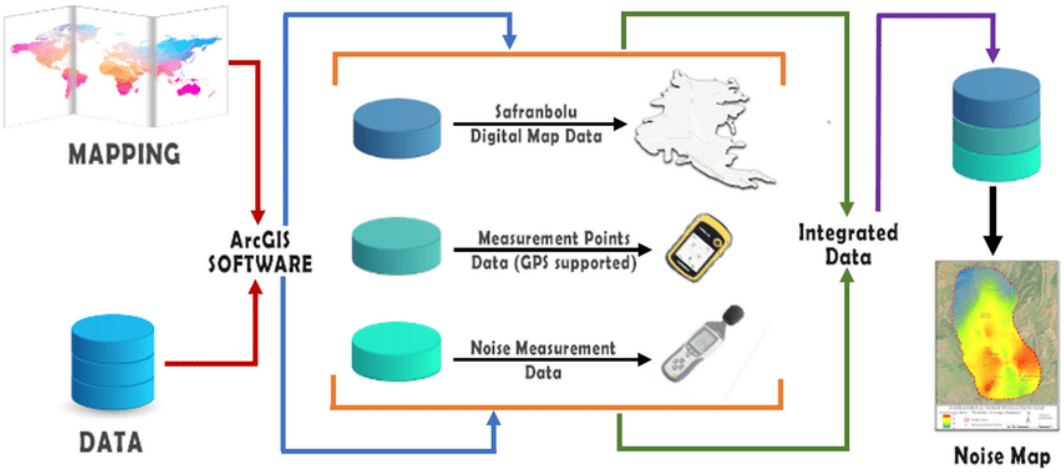
The heat map would be color-coded to represent different levels of noise pollution, ranging from low to high. The map could be divided into different zones or areas, such as neighborhoods, city blocks, or specific locations of interest.



Visualization techniques:1. Heatmap
2. Time series plot
3. Bar chart
4. Geographic information system (GIS) mapping
5.Box plot







flowchart for noise pollution monitoring system