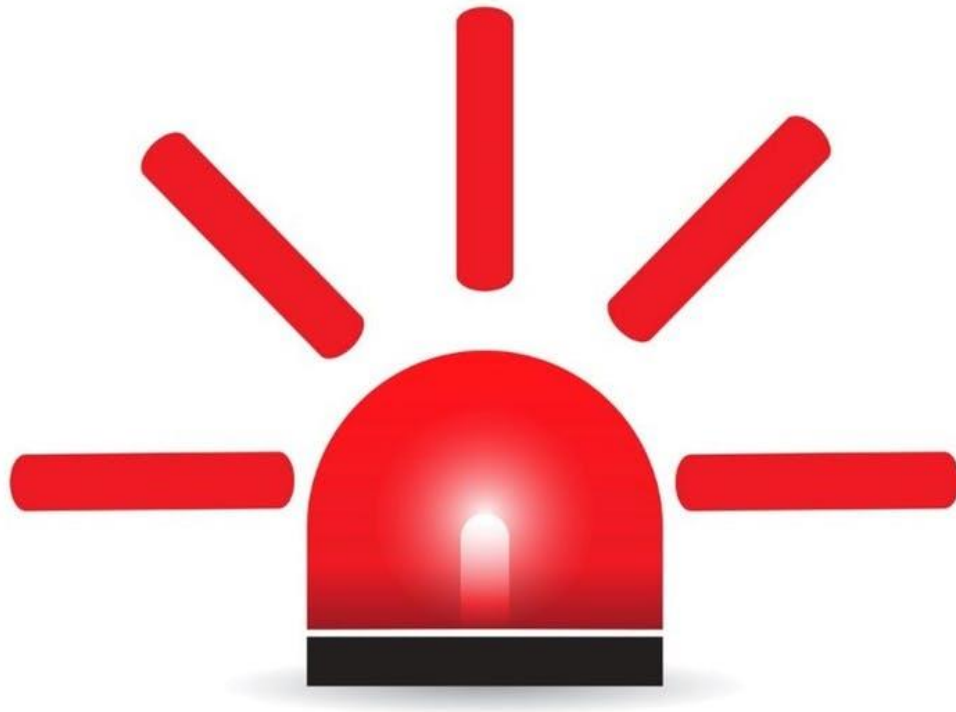


Outbreak Alert System



Overview:

Its an alert system that notifies once a case like outbreak of a disease from one area is recorded.The system also gives the latest updates.

Things used in this project

Hardware components



[Bolt IoT Bolt WiFi Module](#)



Breadboard (generic)



LED (generic)



Jumper wires (generic)

Software apps and online services



[Bolt IoT Bolt Cloud](#)

Telegram



[Microsoft Windows 10](#)

MySQL

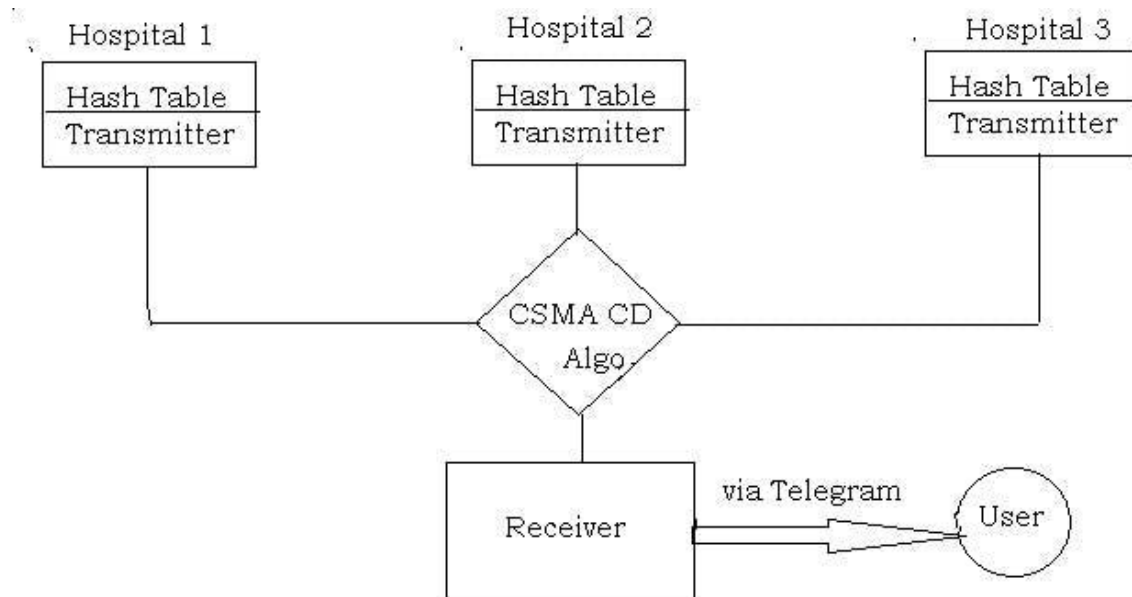
Story

1.Introduction:

This project is about giving alert whenever an outbreak occurs. Whenever a case occurs in a hospital. The data is stored in form of hash table and then to the database. Then we have transmitter function which transmits the information about the outbreak and recovery as per the hashing index it sends data to corresponding receiver module. The receiver function then sends the alert through Telegram. CSMA CD non persistent is the protocol through which this communication is happening.

2. CONCEPT USED:

Block Diagram:



1.Transmitter Part:

1.1 Hash table:

So whenever a corona patient is registered in a particular hospital. His/Her residence place is asked,as that area is now vulnerable. So the areas are given hashing index as per that records are stored in form of hash table. Now when the patient gets recovered his/her residence place is asked,based on the hashing index of that place his/her record gets removed from hash table. The records are stored using separate chaining,so we are having link list for each hashing index.

1.2 Data Transmitter:

Now from hash table the data goes to database. The database consists of API of receiver module of a particular area along with the hashing index. Then the data from hash table(count of patient from that area recovered or admitted) is populated in database. Now the transmitter sends data to appropriate receiver module.

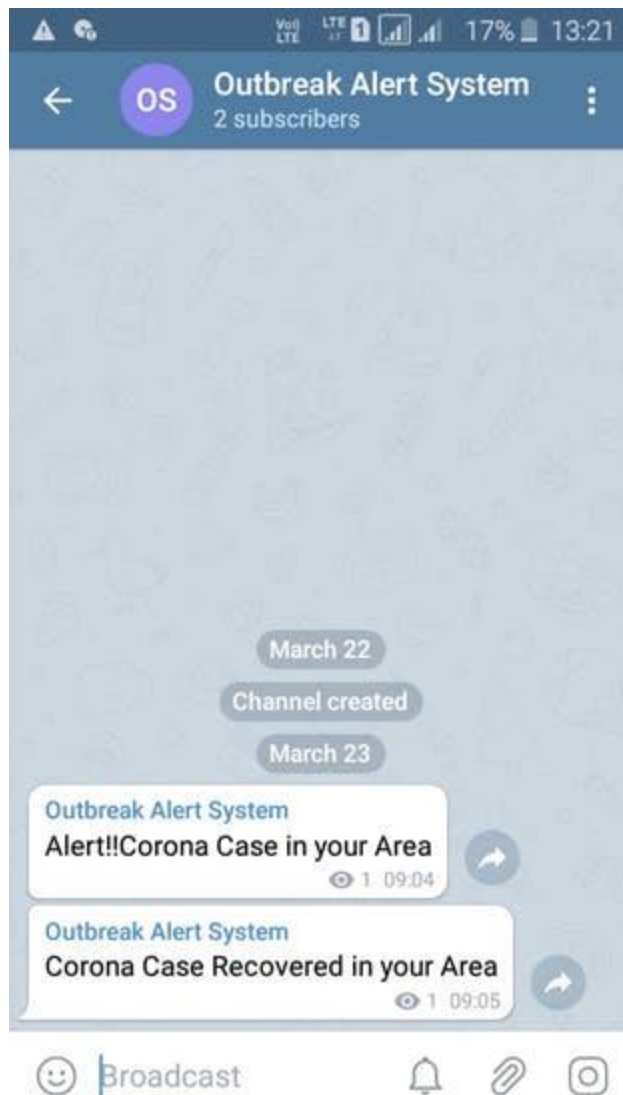
2.Receiver:

The data received by receiver is sent via Telegram. Transmitter only transmits when the acknowledgement pin is high. While transmission acknowledge pin goes low and appropriate pin that is corona alert or corona recovery is made high.

3.Protocol Used:

The protocol implemented here is CSMA CD non persistent. In this protocol the transmitter waits for random time once it find acknowledgement pin is high. Now if it is again high then only transmission will begin. Through this all hospital could communicate without collision.

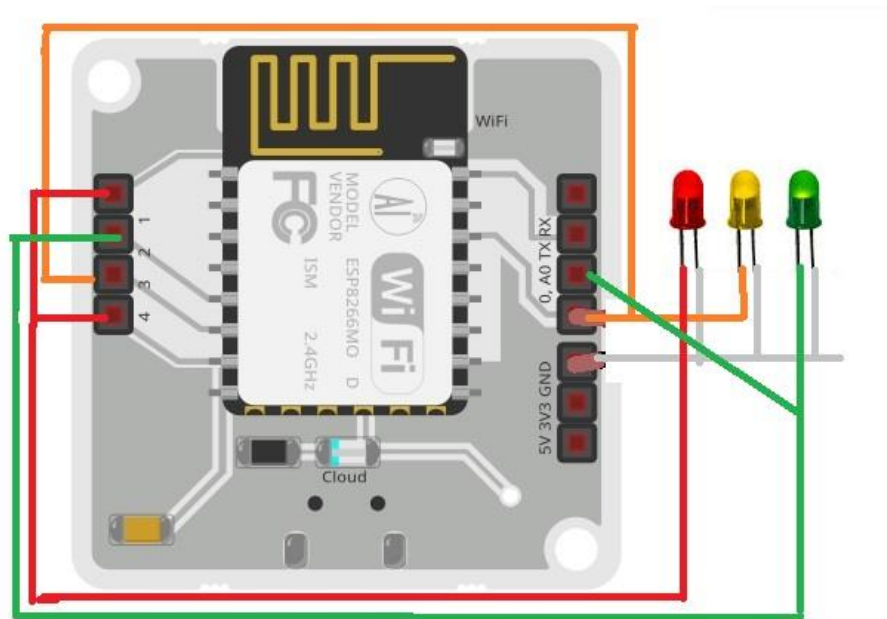
3.RESULT:



Schematics

Receiver Schematic

Circuit Diagram



Implementation

Actual Assembly of Circuit

