

Fridge Data Recorder-Based on Machine Learning Model

Kumar Aishwary

Capstone Project

BOLT IOT Training

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INSTRUCTOR: - Mr. Pranay Pai Vernekar

Abstract

Usually We put lots of important stuffs in Fridge and we do care about its Hygene.

Some Food and breveages are quite sensitive towards temperature change and corrode easily.

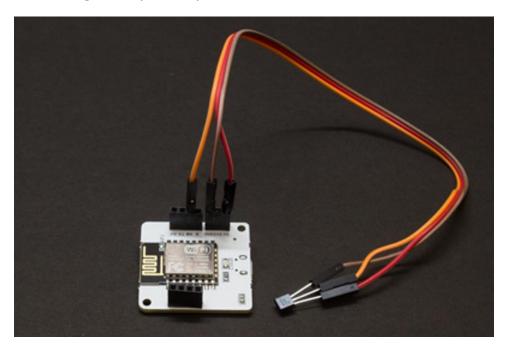
In this project we came up with an idea to alert admin whenever there is any drastic change and fall in temperature of fridge.

Algorithm:-

Zscore Analysis: -A z-score is the number of standard deviations from the mean a data point is. But more technically it's a measure of how many standard deviations below or above the population mean a raw score is. A z-score is also known as a standard score and it can be placed on a normal distribution curve. Z-scores range from -3 standard deviations (which would fall to the far left of the normal distribution curve) up to +3 standard deviations (which would fall to the far right of the normal distribution curve). In order to use a z-score, you need to know the mean μ and also the population standard deviation σ .

1.SETTING UP CIRCUIT DAIGRAM: -

Circuit Diagram is quite simple: -



Locating the module in fridge:-

I Put sensor near coolest point in the fridge. So it can slope of fall and rise is sharp.



Readings:-

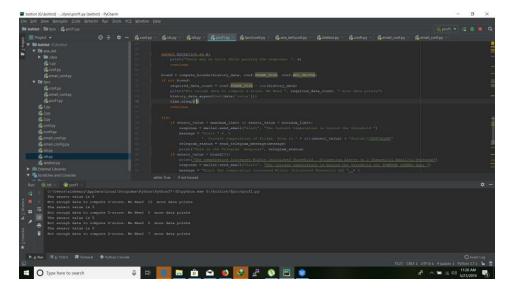


Fig1:-Accumulating data to calculate Z-score

2.

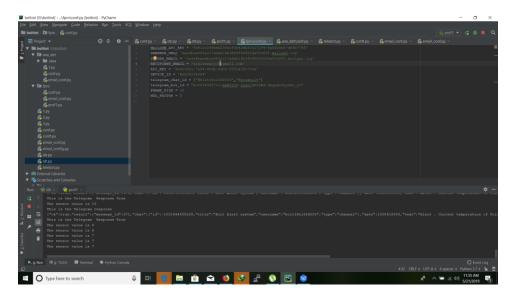


Fig2:-Reading State

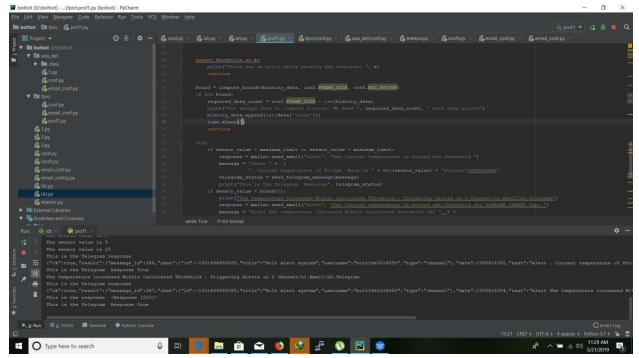
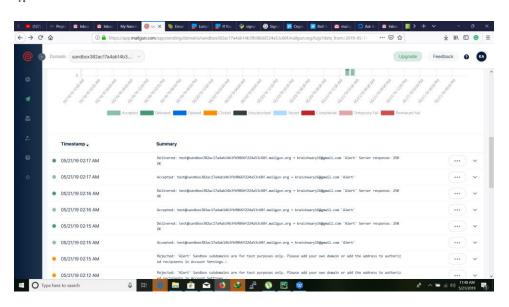
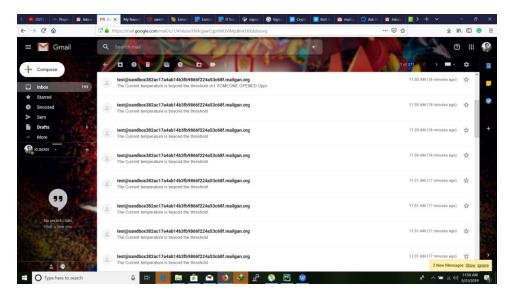


Fig3:- Trigger Email And Telegram Broadcast when someone open Doors

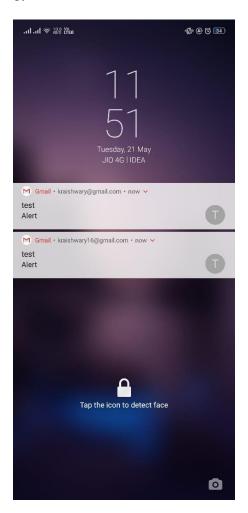
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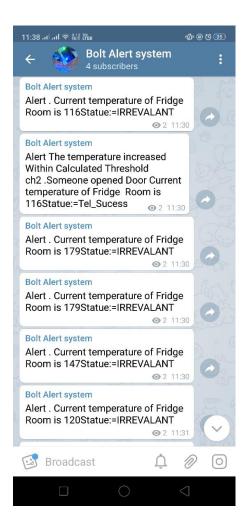


Email log



Received Email





1.Email Alert	2. Broadcast Alert on Telegram

Results:-

Finally the module is able to trigger mail and broadcast for any irrevalant result.