4 Weeks Summer Externship Training Report

On

# Employee Appreciation Based On customer Satisfaction Using IBM Cognitive Services

By Smart Internz


Submitted by

**Rahil Anwar**

**Registration No : 12009251**

**Program Name :  B.Tech (CSE)**

Under the Guidance of

**Mr.Rammohan Bethi**

**School of Computer Science & Engineering**

**Lovely Professional University**

**Phagwara**

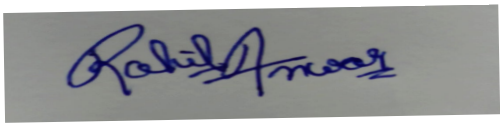

(June-July-2021)

# CONTENT


- DECLARATION
- INTRODUCTION
  - Overview
  - Purpose
- LITERATURE SURVEY
  - Existing Problem
  - Purposed Solution
- THEORITICAL ANALYSIS
  - Block diagram
  - Hardware/Software Solution
- EXPERIMENTAL INVESTIGATION
- FLOW CHART
- RESULT
- ADVANTAGES & DISADVANTAGES
- APPLICATION
- CONCLUSION
- FUTURE SCOPE
- BIBILOGRAPHY
- APPENDIX
- UI SCREENSHOTS

# DECLARATION

I hereby declare that I have completed my 4 weeks summer training at SmartInternz from June 16,2021 to July 16,2021 under the guidance of Mr. Rammohan Bethi. I have declare worked with full dedication during 4 weeks of training and my learning outcomes fulfill the requirements of training for the awarded of degree of B.tech Computer Science & Engineering , Lovely Professional University, Phagwara.



Name of Student : Rahil Anwar
Registration No : 12009251

Date : 09/08/2021

# INTRODUCTION

Employee satisfaction is becoming an irreplaceable part of positive company culture. Along with that, customer satisfaction has also become a prime aim. But, building a loyal and happy customer base is not an easy task. It is achievable if you have a workforce that is satisfied with their job. Their satisfaction levels will reflect on how they interact with a customer. The prime goal should be keeping your employees engaged, satisfied, and happy with their work.

The way you treat your employees is the way they treat your customers According to a recent article, creating an employee recognition culture can increase employee retention by up to 31%. Employee recognition is the process of showing appreciation for an employee's achievements, actions, and contributions. In big companies (Amazon/Swiggy/Uber ) appreciation is given to the employees based on the customer feedback or satisfaction (chat process/ voice process). Analyzing all the feedback of each customer towards an employee work manually is a tedious job.

## OVERVIEW

Employee satisfaction is a distinct measurement, and it is often related to how you've developed company culture, your pay, your services, the work itself, the people you've hired, and more. The customers your play a role (especially if they have frequent contact with the employee), but most of employee satisfaction is dependent on you as a company. The way you treat your employees is the way they treat your customers According to a recent article, creating an employee recognition culture can increase employee retention by up to 31%. Employee recognition is the process of showing appreciation for an employee's achievements, actions, and contributions.

## PURPOSE

The purpose of the project to appreciate the employee work based on the feedbacks given by the customers to the employees. The feedback given by the customers to a respective employee is analyzed i.e. is it polite feedback/satisfied feedback…etc. Based on that, employee will be given with an appreciation.

# LITERATURE SURVEY

## EXISTING PROBLEM

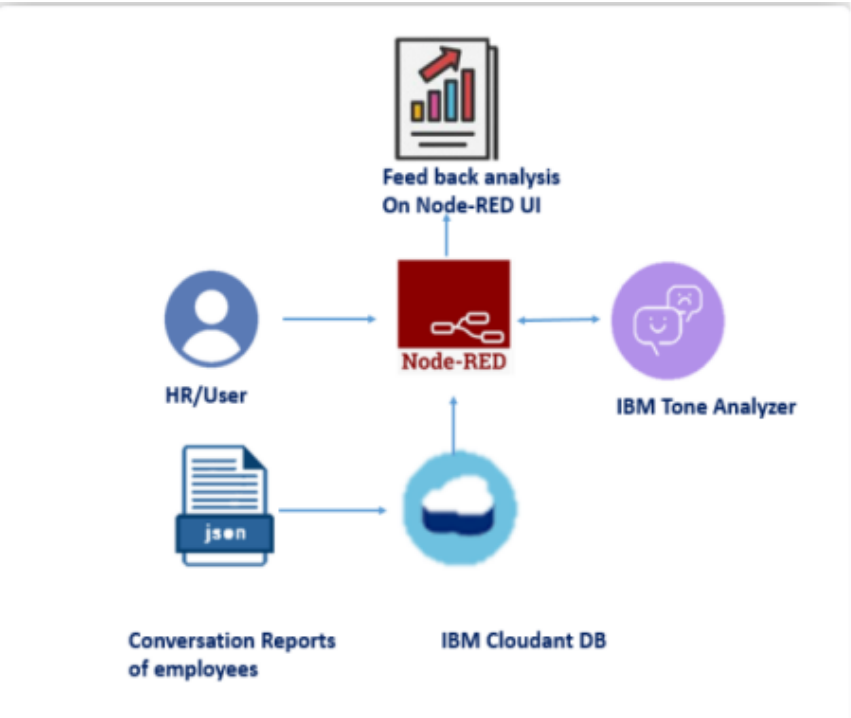
According to a recent article, creating an employee recognition culture can increase employee retention by up to 31%. Employee recognition is the process of showing appreciation for an employee's achievements, actions, and contributions. In big companies (Amazon/Swiggy/Uber ) appreciation is given to the employees based on the customer feedback or satisfaction (chat process/ voice process). Analyzing all the feedback of each customer towards an employee work manually is a tedious job.

## PROPOSED SOLUTION

The main objective of this project is to appreciate the employee work based on analysis of customer feedback. We are designing an application where the HR/ user can upload the feedback report of all the employees. The analysis of each employee report is displayed on the Web application in the form of Bar charts.

# THORETICAL ANALYSIS

## BLOCK DIAGRAM




## HARDWARE/SOFTWARE SOLUTION

1. IBM Cloud
2. IBM Watson Tone Analyzer
3. Node-RED
4. Creating employee database in IBM cloud and upload sample 4 employees feedback json files.

# EXPERIMENTAL INVESTIGATION

1. **Choose a Project Idea:**

Employee Appreciation Based on Customer Satisfaction.

2. **Conduct Background Research**

3. **Compose a Hypothesis:**

Based on our Study and information gathered we can decide how well an employee is appreciable.

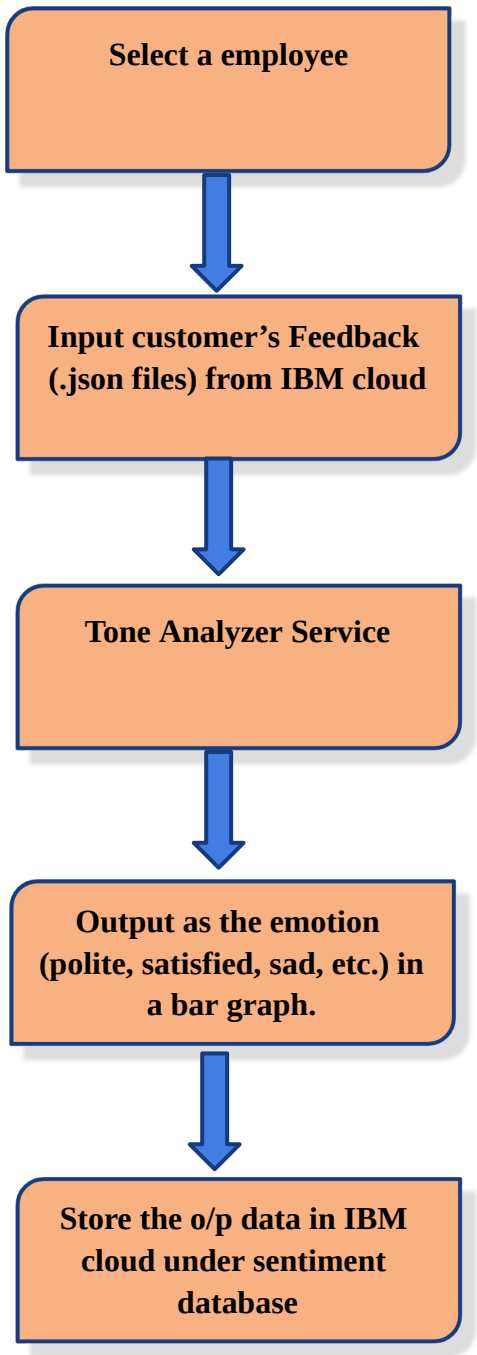
4. **Design your Experiment:**

First we need to collect employees reports in which feedbacks are given by the customers. Next, we give those reports as input to the Tone analyzer service which predicts the emotion behind those feedbacks.

5. **Draw Conclusions:**

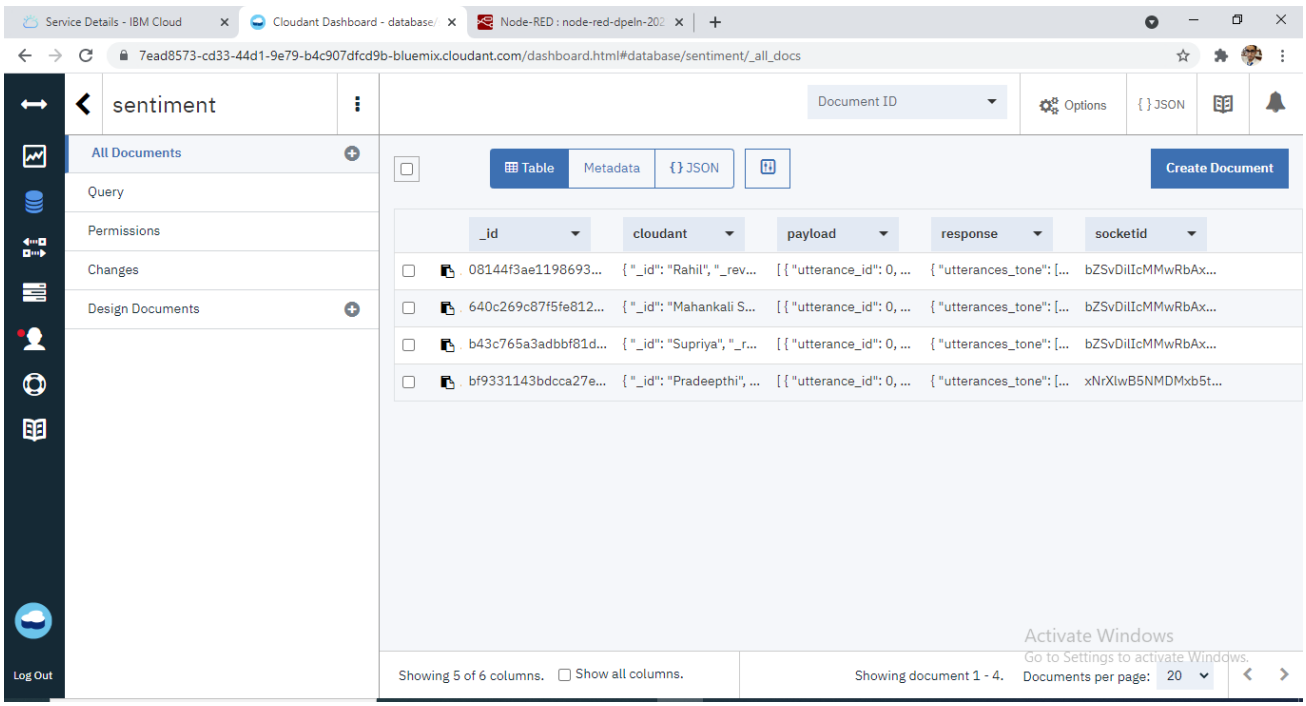
After Building our model, we can able to know how well the employee is working and appreciate the employee work based on analysis of customer feedback.

# FLOWCHART


Select a employee
Input customer's Feedback (.json files) from IBM cloud
Tone Analyzer Service
Output as the emotion (polite, satisfied, sad, etc.) in a bar graph.
Store the o/p data in IBM cloud under sentiment database

# RESULT

node-red-dpeln-2021-08-04.eu-gb.mybluemix.net/ui/#!/0?socketid=W_6E8kXFsklFWVgzAAAi
Customer Satisfaction
Select Employee
Sentiment Analysis
polite
sad
frustrated
impolite
satisfied
sympathetic
10
7.5
5
2.5
0
Data
Rahil


Service Details - IBM Cloud
Cloudant Dashboard - database
Node-RED : node-red-dpeln-202
7ead8573-cd33-44d1-9e79-b4c907dfcd9b-bluemix.cloudant.com/dashboard.html#database/sentiment/_all_docs
sentiment
Document ID
Options
{ } JSON
All Documents
Query
Permissions
Changes
Design Documents
Table
Metadata
{ } JSON
Create Document
_id
cloudant
payload
response
socketid
08144f3ae1198693...
{ "_id": "Rahil", "_rev...
[ { "utterance_id": 0, ...
{ "utterances_tone": [...
bZSvDiIIcMMwRbAx...
640c269c87f5fe812...
{ "_id": "Mahankali S...
[ { "utterance_id": 0, ...
{ "utterances_tone": [...
bZSvDiIIcMMwRbAx...
b43c765a3adbbf81d...
{ "_id": "Supriya", "_r...
[ { "utterance_id": 0, ...
{ "utterances_tone": [...
bZSvDiIIcMMwRbAx...
bf9331143bdcca27e...
{ "_id": "Pradeepthi", ...
[ { "utterance_id": 0, ...
{ "utterances_tone": [...
xNrXlwB5NMDMxb5t...
Log Out
Showing 5 of 6 columns.
Show all columns.
Showing document 1 - 4.
Documents per page: 20
Activate Windows
Go to Settings to activate Windows.

# ADVANTAGES AND DISADVANTAGES

## ADVANTAGES

1. This project is used to appreciate the employee work based on analysis of customer feedback.
2. The analysis of each employee report is displayed on the Web application in the form of Bar charts which reduces manual work.
3. Increase Employee Productivity.

## DISADVANTAGES

1. Too much appreciation and disappointment to a person is not good.

# APPLICATIONS

- This application is used for deciding the employee's work is upto the mark or not.
- This system can also be used to employee to check whether they receiving good or bad feedback from the customers so that they will improve their work.

# CONCLUSION

The employee work is measured based on analysis of customer feedback. We are designing an application where the HR/ user can upload the feedback report of all the employees. The analysis of each employee report is displayed on the Web application in the form of Bar charts.

# FUTURE SCOPE

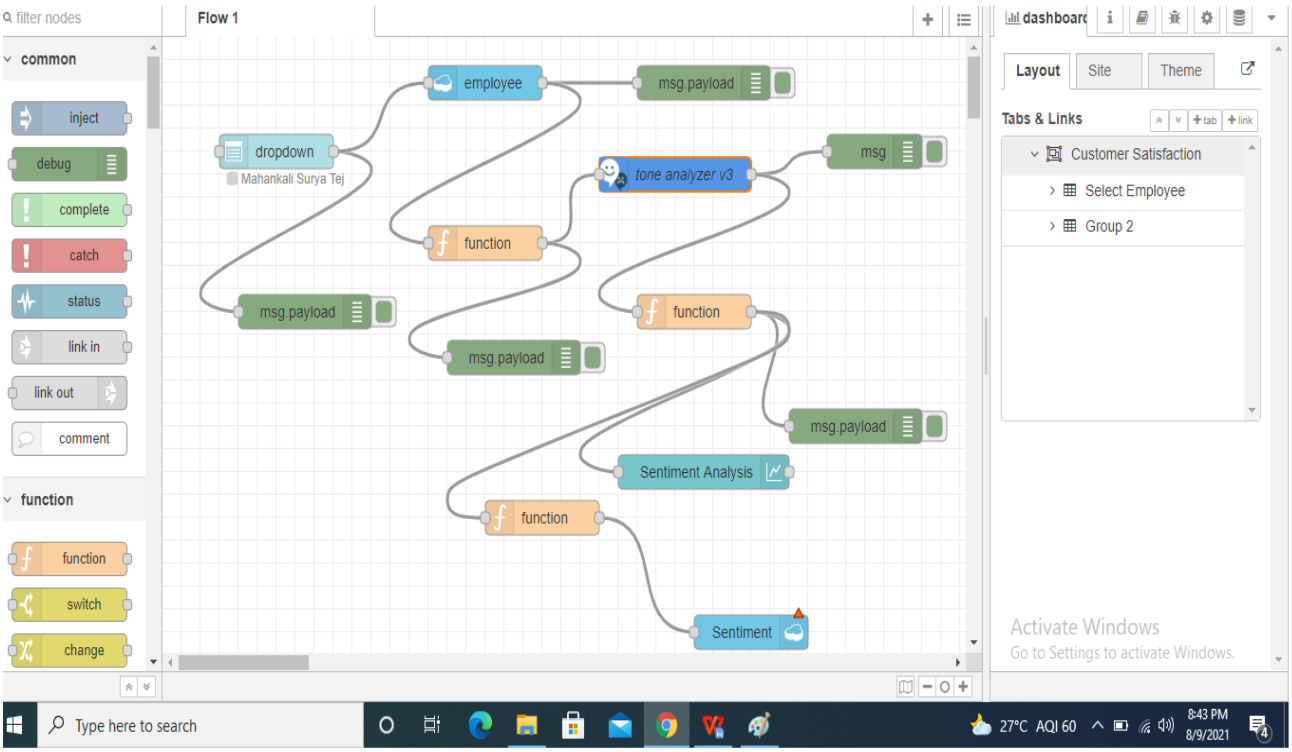
Employee satisfaction is becoming an irreplaceable part of positive company culture. Along with that, customer satisfaction has also become a prime aim. But, building a loyal and happy customer base is not an easy task. It is achievable if you have a workforce that is satisfied with their job. Their satisfaction levels will reflect on how they interact with a customer. The prime goal should be keeping your employees engaged, satisfied, and happy with their work. This project will help you out in this by extracting the emotions from the feedbacks of the customers for the employees. It had a good future scope also.

# BIBILOGRAPHY


- https://www.youtube.com/watch?v=beCCPIH0-8c
- https://www.youtube.com/watch?v=vYreeoCoQPI
- https://www.youtube.com/watch?v=wUb--6FPBik
- Smartinternz project description.

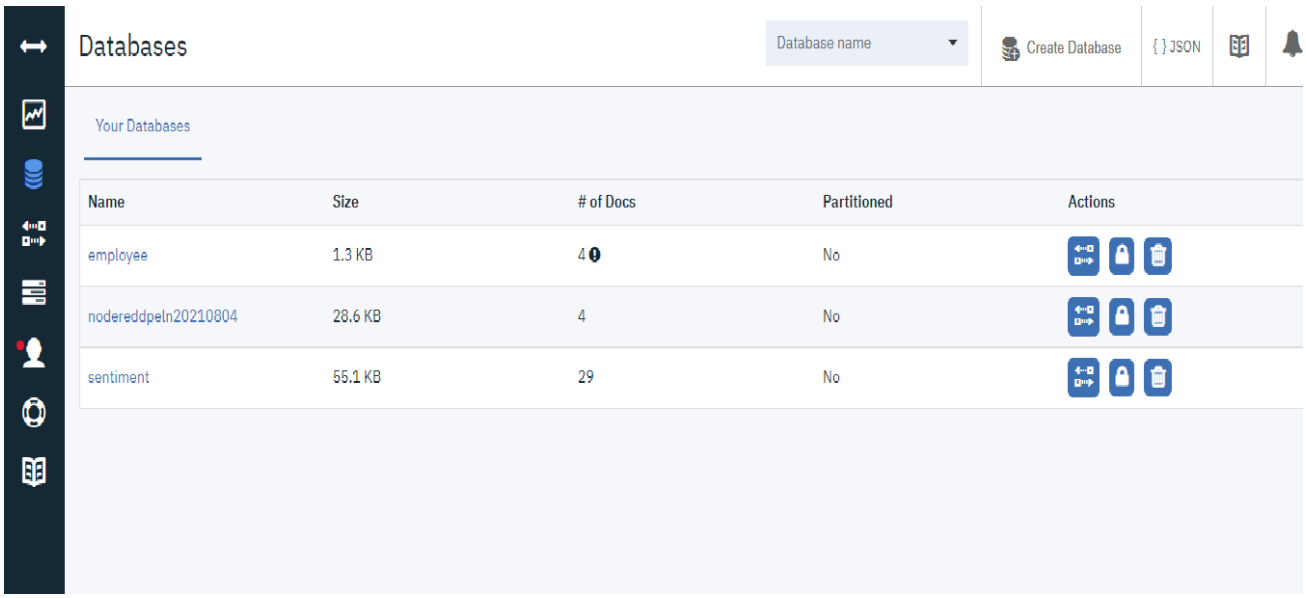
# APPENDIX

## Node-RED Flow

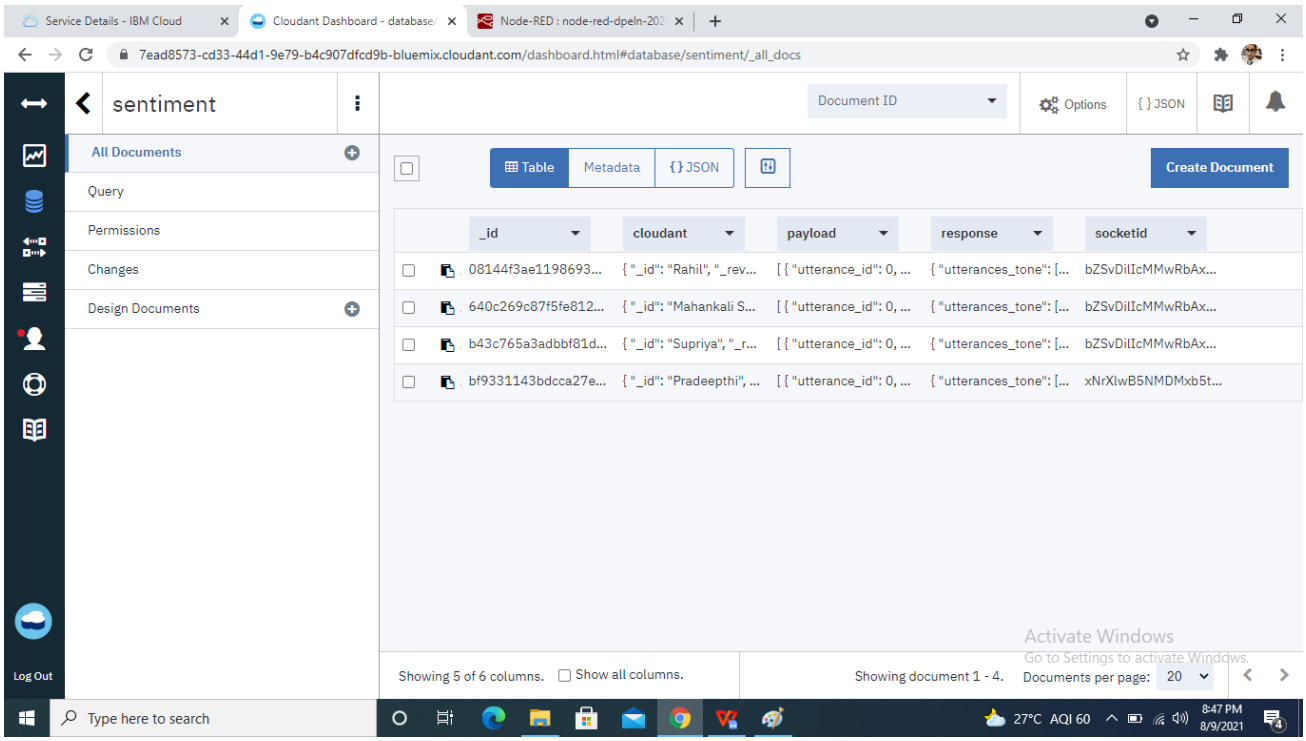


## IBM Cloud databases

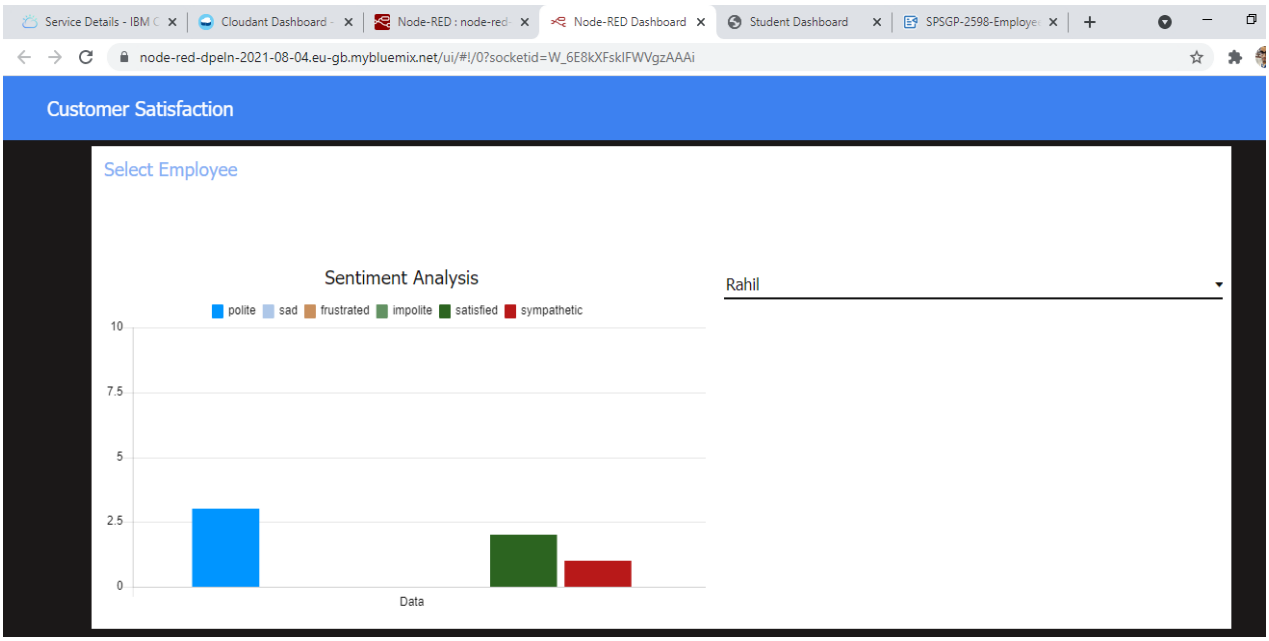
Input employees reports stored in employee database

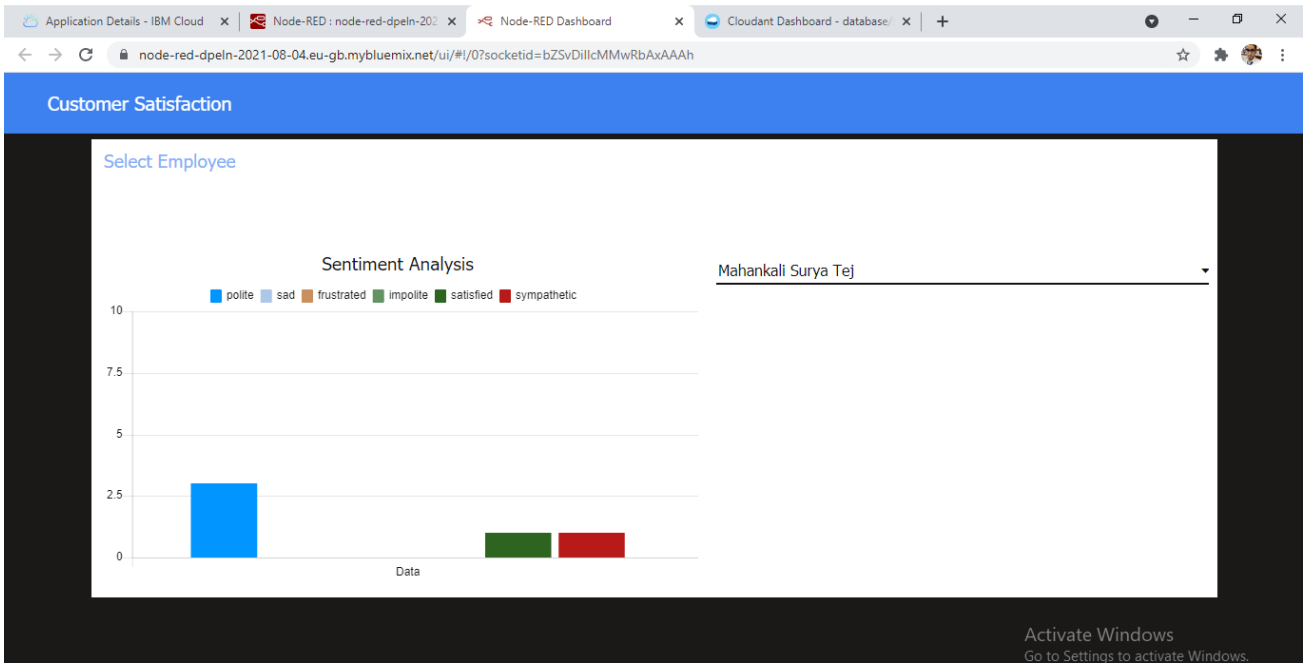


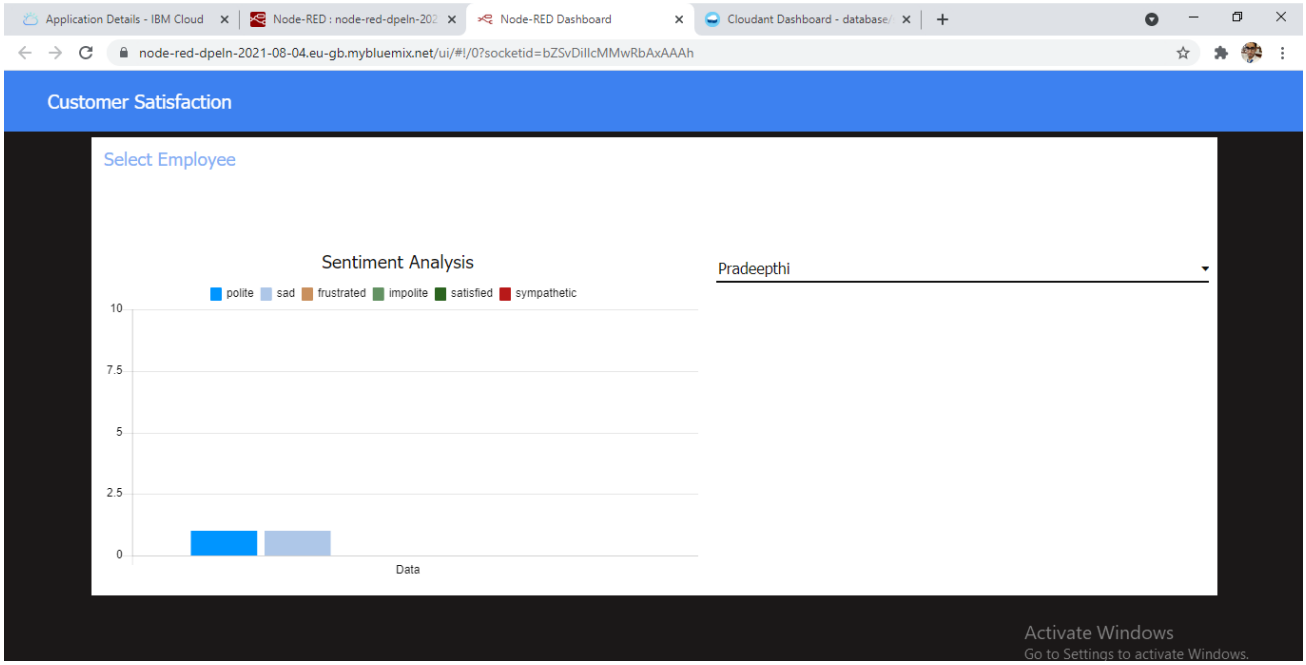

Output sentiment by tone analyzer stored in sentiment database

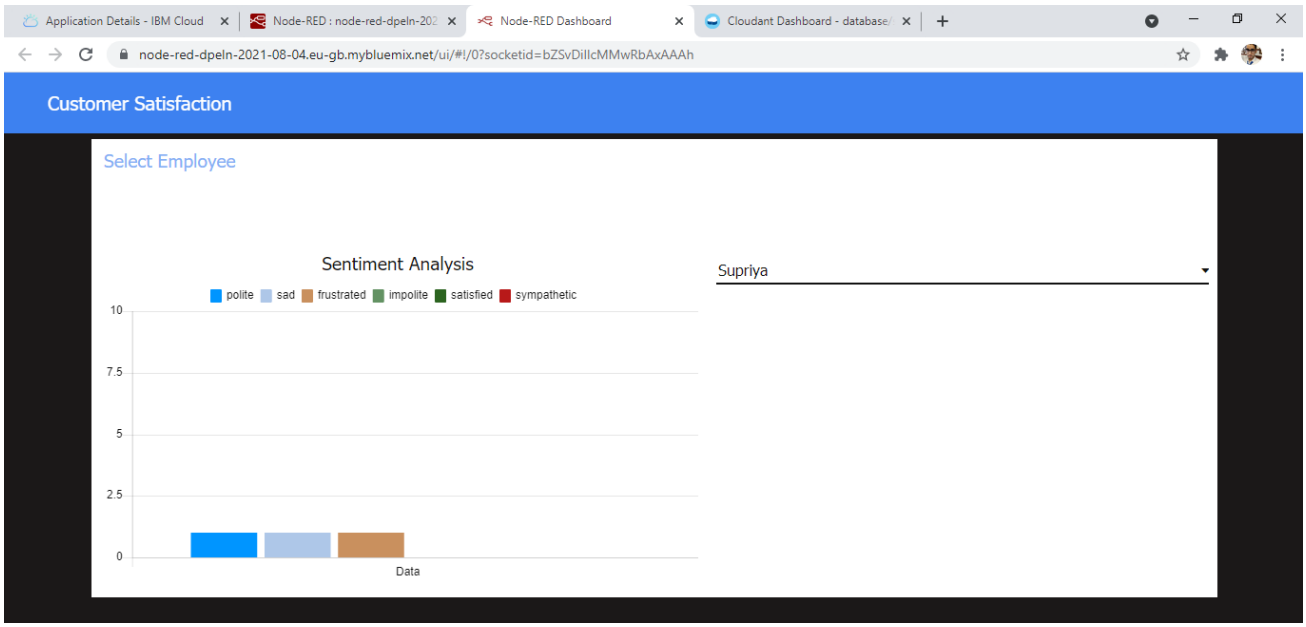


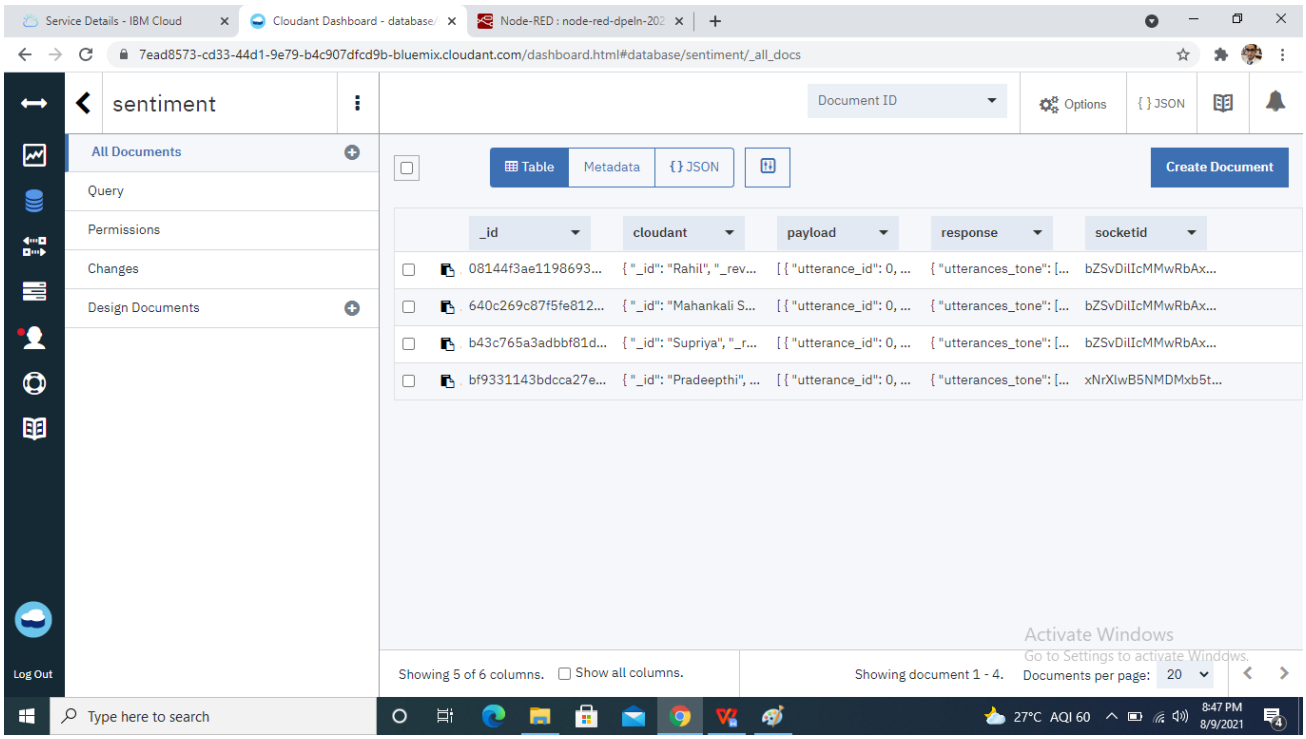
# UI SCREENSHOTS




Application Details - IBM Cloud
Node-RED : node-red-dpeln-202
Node-RED Dashboard
Cloudant Dashboard - database/
node-red-dpeln-2021-08-04.eu-gb.mybluemix.net/ui/#!/0?socketid=bZSvDiIlcMMwRbAxAAAh
Customer Satisfaction
Select Employee
Sentiment Analysis
polite
sad
frustrated
impolite
satisfied
sympathetic
10
7.5
5
2.5
0
Data
Pradeepthi
Activate Windows
Go to Settings to activate Windows.


Application Details - IBM Cloud
Node-RED : node-red-dpeln-202
Node-RED Dashboard
Cloudant Dashboard - database/
node-red-dpeln-2021-08-04.eu-gb.mybluemix.net/ui/#!/0?socketid=bZSvDiIlcMMwRbAxAAAh
Customer Satisfaction
Select Employee
Sentiment Analysis
polite
sad
frustrated
impolite
satisfied
sympathetic
10
7.5
5
2.5
0
Data
Supriya


Service Details - IBM Cloud
Cloudant Dashboard - database
Node-RED : node-red-dpeln-202
7ead8573-cd33-44d1-9e79-b4c907dfcd9b-bluemix.cloudant.com/dashboard.html#database/sentiment/_all_docs
sentiment
Document ID
Options
{ } JSON
All Documents
Query
Permissions
Changes
Design Documents
Table
Metadata
{ } JSON
Create Document
_id
cloudant
payload
response
socketid
08144f3ae1198693...
{ "_id": "Rahil", "_rev...
[ { "utterance_id": 0, ...
{ "utterances_tone": [...
bZSvDiIIcMMwRbAx...
640c269c87f5fe812...
{ "_id": "Mahankali S...
[ { "utterance_id": 0, ...
{ "utterances_tone": [...
bZSvDiIIcMMwRbAx...
b43c765a3adbbf81d...
{ "_id": "Supriya", "_r...
[ { "utterance_id": 0, ...
{ "utterances_tone": [...
bZSvDiIIcMMwRbAx...
bf9331143bdcca27e...
{ "_id": "Pradeepthi", ...
[ { "utterance_id": 0, ...
{ "utterances_tone": [...
xNrXlwB5NMDMxb5t...
Activate Windows
Go to Settings to activate Windows.
Showing 5 of 6 columns.
Show all columns.
Showing document 1 - 4.
Documents per page: 20
Log Out
Type here to search
27°C AQI 60
8:47 PM
8/9/2021