SMART EMPLOYEE TRACKING SYSTEM

SUBRAJIT HOOM
GULSHAN KUMAR
T YOGESH SINGH
SIDDHANT SHENOY

INTRODUCTION

Overview

In this Project we are creating a Smart Employee Tracking system using MIT App Inventor.

Purpose

This app will help track the location of the employee and provide the details to the admin in real time.

LITERATURE SURVEY

EXISTING PROBLEM

It is very difficult to keep track on every employee individually in a company

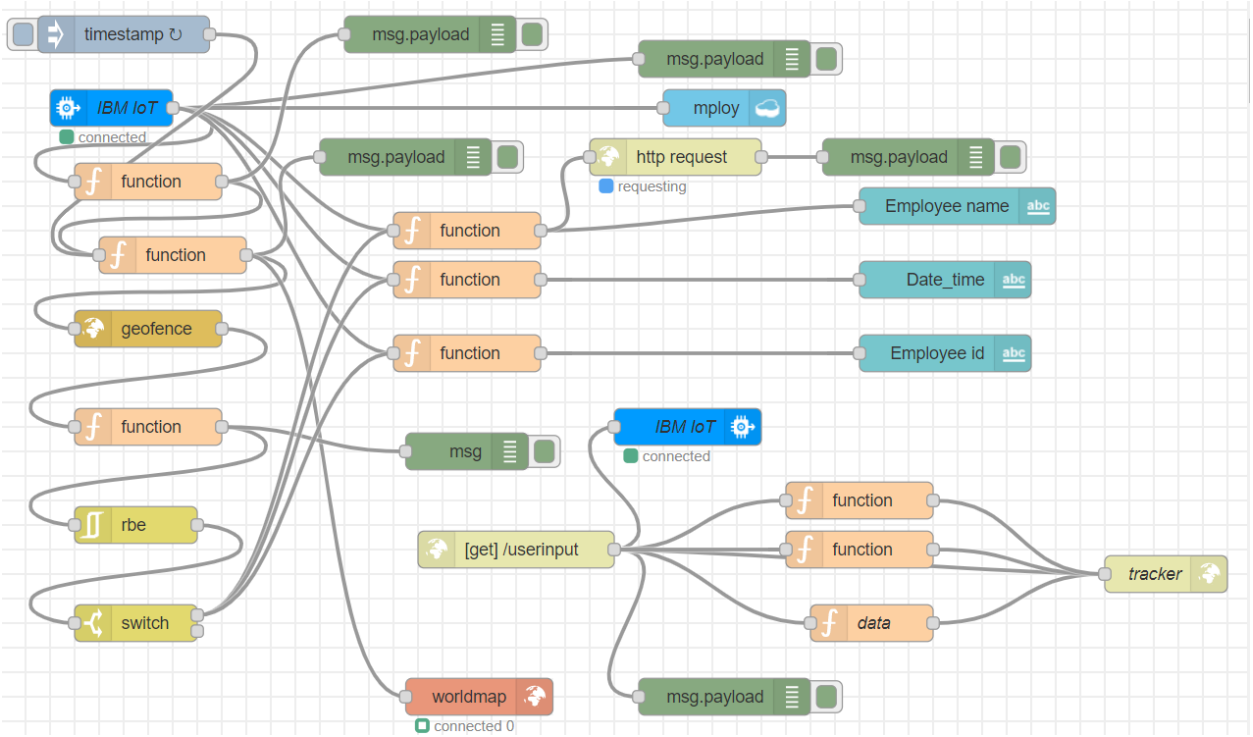
PROPOSED SOLUTION

- Employees are provided with a device that contains a beacon broadcaster with their unique ID.

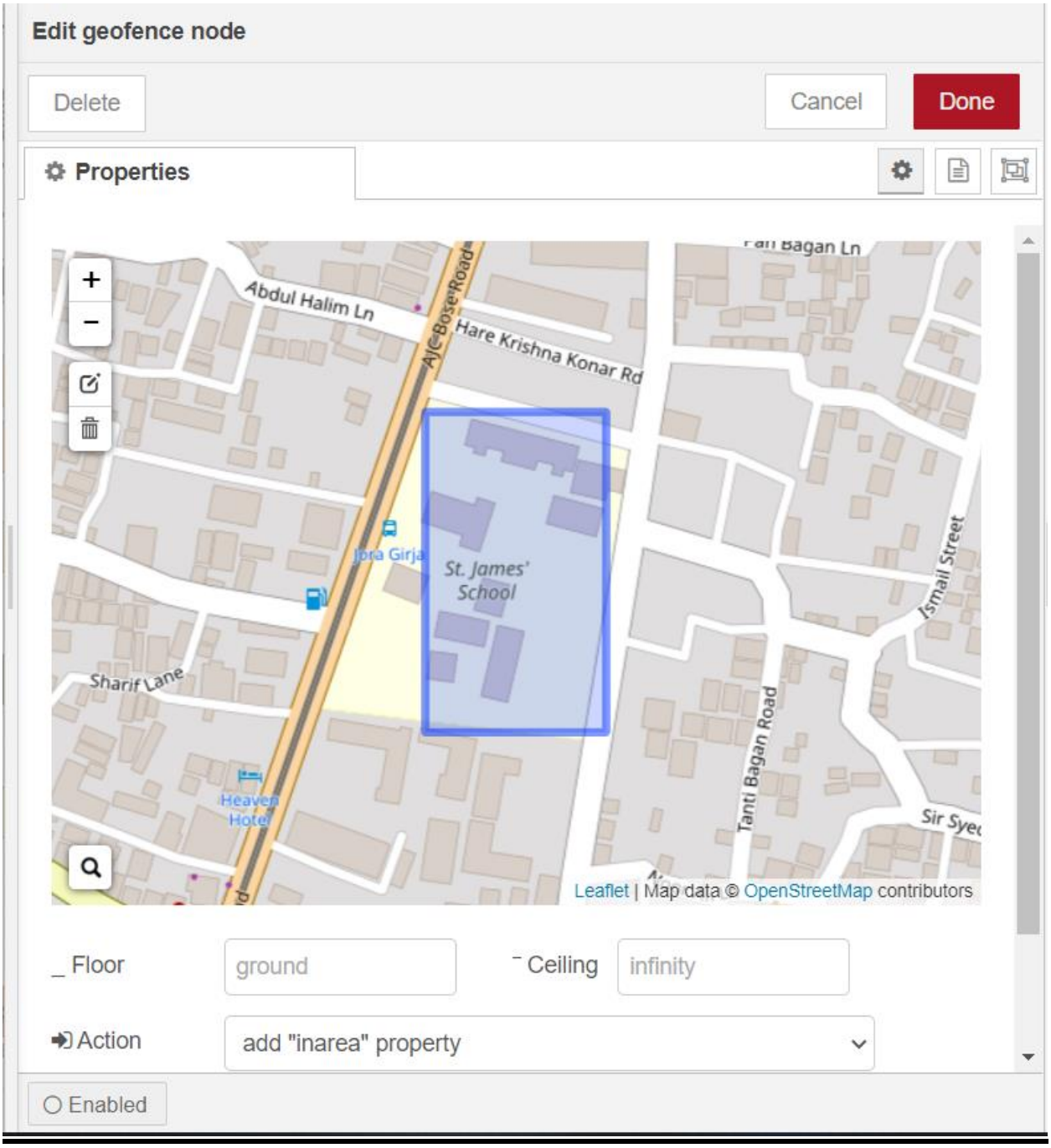
- The scanner at each room of the workplace scans for the available beacon broadcasters and gets the Employee Id from it.
- The location of each employee with their ID and time is updated to the cloud and stored in the database.
- There will be a provision for Admin to track the location of every employee at a particular zone in the Web app.

THEORETICAL ANALYSIS

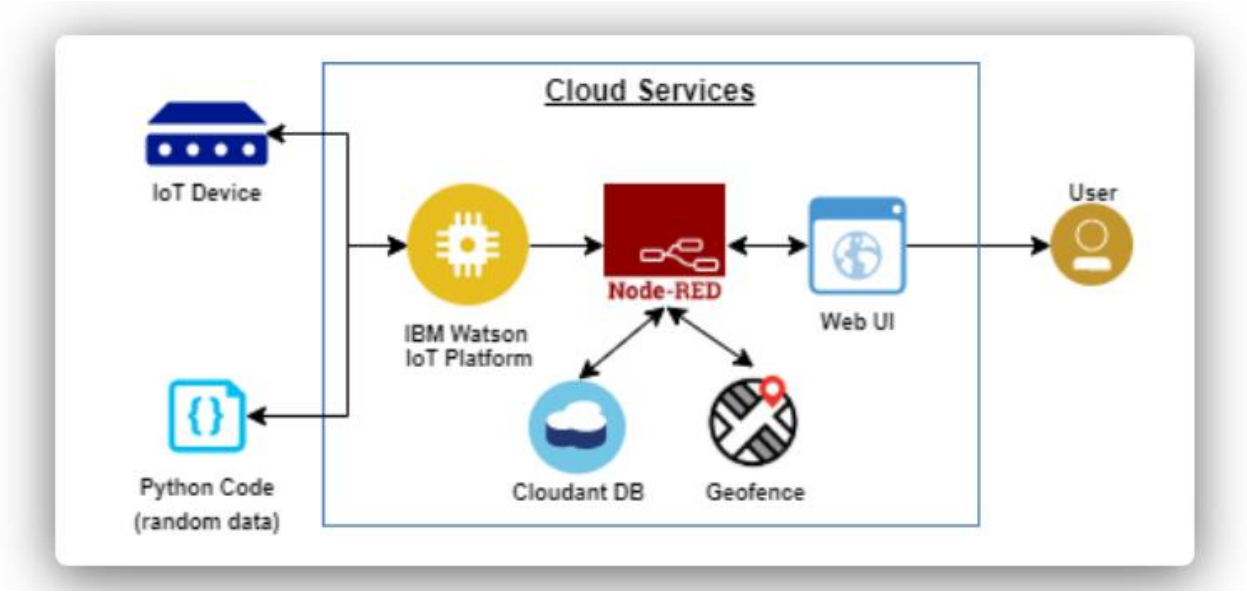
BLOCK DIAGRAM



EXPERIMENTAL INVESTIGATIONS



FLOW CHART


Cloud Services
IoT Device
IBM Watson
IoT Platform
Node-RED
Web UI
User
Python Code
(random data)
Cloudant DB
Geofence

RESULT


IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\gulsh\Downloads\final_beacon.py ==========
2021-08-03 11:26:43,466 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:3zj2w8:vitdevice:8335
enter employee name :GULSHAN
enter employee id :1256
Published data Successfully: %s {'names': 'GULSHAN', 'id': '1256', 'lat': 22.5555, 'lon': 88.3654, 'Date_Time': '2021-08-03 11:26:43'}
enter employee name :
Ln: 9 Col: 21

8/3/2021, 11:44:10 AM node: 833aad7f.04dd3

msg.payload : Object

{ name: "Gulshan", lat: 22.5555, lon: 88.3654 }

8/3/2021, 11:44:10 AM node: d02bfd6a.e3e0e

msg : Object

{ payload: false, topic: "", _msgid: "a45c7692.c77ae8", location: object }

8/3/2021, 11:44:15 AM node: 833aad7f.04dd3

msg.payload : Object

{ name: "Gulshan", lat: 22.5555, lon: 88.3654 }

8/3/2021, 11:44:15 AM node: d02bfd6a.e3e0e

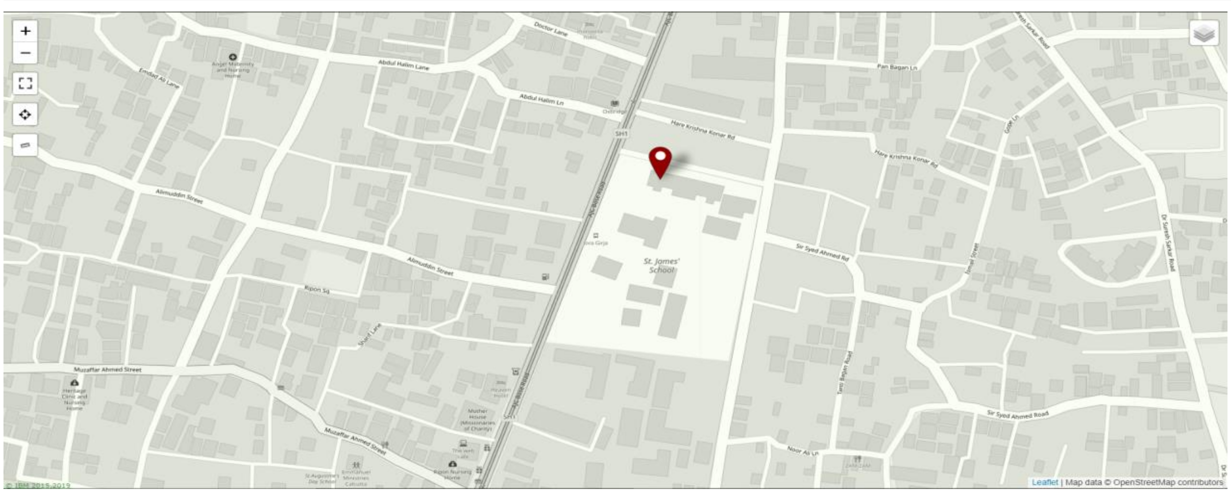
msg : Object

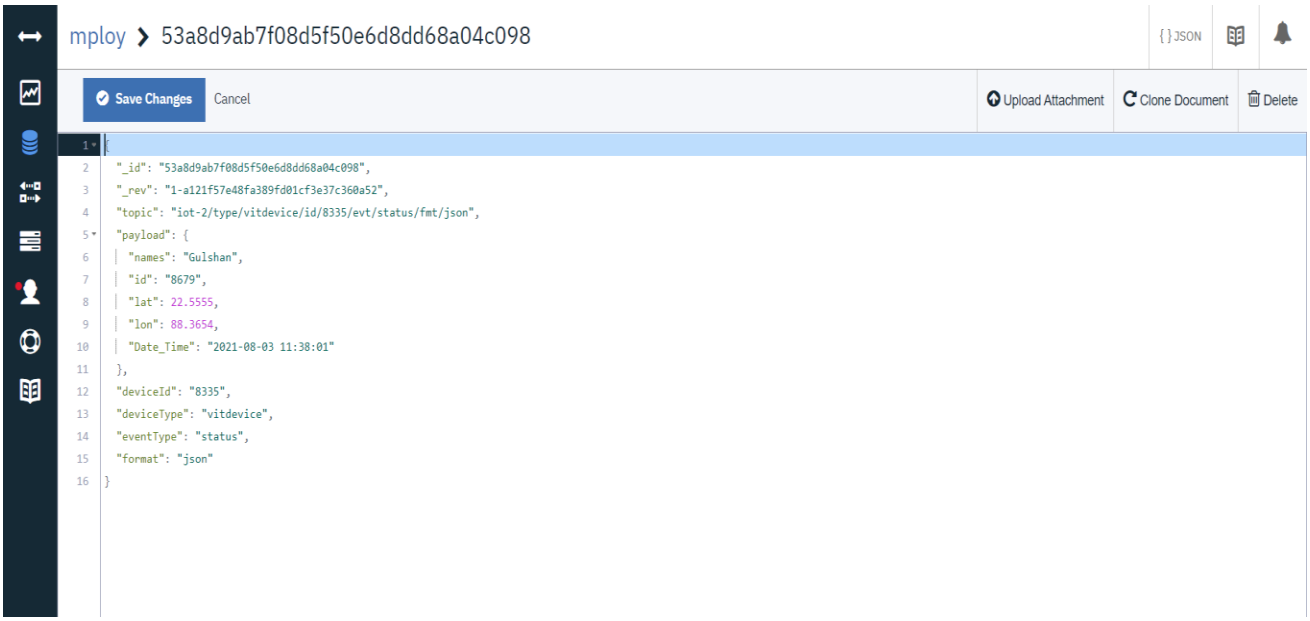
{ _msgid: "8d405b3c.759938", payload: true, topic: "", location: object }

≡ EMPLYOEE

employeee

Employee id	8679
Date_time	2021-08-03 11:38:01
Employee name	Gulshan





ADVANTAGES

- It addresses attendance issues
- Controlling unethical behaviour
- Improve strength and productivity

DISADVANTAGES

- Location can be inaccurate sometimes
- Employees might feel offended as they might feel they are spied upon
- Monitoring might consume time for accurate analysis
- Human intervention as data can be compromised in not secured properly

APPLICATION

- Employee Tracking and Monitoring Software helps employers in a variety of manners. You can keep track of every working and non-working activity related to your business.
- It ensures no illegal action, increasing your business productivity, keeping track of your budget, and increasing your company's cost.

CONCLUSION

Employee tracking systems have their set of drawbacks, but these are not serious enough to outweigh the positives. With further technological advancements, these flaws would surely be overcome, helping businesses with even more effective data.

FUTURE SCOPE

- It can be used to track down the attendance and working hours of employee of a company.
- It cancels the ambiguity in above set issue without human intervention.

BIBLIOGRAPHY

- IBM CLOUD
- NODERED
- PYTHON