Documentation For Python Software

INSTALLING

pip3 install requests

Creation of the Random Sensor Reading	
File path	/sensor/sensor.py

Implementation Notes
This file creates and returns all information about single sensor
Examples Value(notice each example case is created randomly)
1st Example
Type: doorOpen
Value: True
Timestamp: 1607439305.4339478

2nd Example
Type: temperature
Value: 5.34
Alert: (Is the temperature outside the range?) False
Timestamp: 1607439344.164427

Parameters

Parameter	Data Type
ID	int
type	str
value.	float or bool
alert	bool
timestamp	unix number

Sending the Random Sensor Reading to the Database	
File path	/gateway/gateway.py

Implementation Notes

This file creates random id for the sensor and use it to post data for sensor. This file generates reading periodically and store it in the database. Data will be sent in a JSON format. The program is designed to figure out if the type is a temperature or a doorOpen. Then it determines what functions to call to send the correct data to the API

Example for Temperature Value sent to API

{"ID": 4,"temperature": "3.20", "alert": "False", "timestamp": "1607482106.647864"}

Parameters

Parameter	Data Type
ID.	int
value.	float
alert	bool
timestamp	timestamp

Response Messages

HTTP Status Code	Reason	Example Value
201	success	{ "message": "New temperature record was added"}
400	fail	{ "message": "err"}