WEB-APP FUNCTIONALITY

This website is an attempt to create a graphical display of the output achieved through the sensors used in our model. It will mainly show the analytics of the sensor data and the controller functionality.

ANALYTICS

The dashboard is supposed to show the results obtained by analysis of the parameters retrieved by the sensors from our street-light model. It will graphically show the trend of selected parameters. These parameters include:
1)Up-time/downtime of street lights
2)Faulty lights
3)Temperature
4)Energy consumed
5)Cost saved
6)Humidity

Up-time/Down-time

The logged-in user would be able to see the up-time/down-time for all the street lights in our system.There will be a graph with (light-number) as x-axis and (up-time) as y-axis and also an average up-time/down-time with respect to time.
Note: By Up-time/down-time here means the time duration for which the lights are turned on/off.

Faulty lights

This will show the number of faulty lights for all the street lights in our system.
A tabular information will show the fault status of each light.
For ex: [W- working, NW-not working]

Light No	Condition
1	W
2	NW
3	W
4	W
5	W

Energy consumed
This will calculate and display the energy consumed in Joules by all the lights in a specific period of time. The dashboard will present a value weekly/monthly of the energy consumed over that period.This can be achieved through a graphical representation of monthly/weekly energy consumption.
x-axis: month
y-axis: Energy consumed
Temperature
The user here will see a graph of the temperature values over a time period.
The graph will display the months on x-axis and temperature readings at y-axis and values corresponding to the data sent by the sensors.

Humidity
The user here will see a graph of the humidity values over a time period.
The graph will display the months on x-axis and humidity readings at y-axis and values corresponding to the data sent by the sensors.

CONTROLLER
The second functionality of the website is controlling the street lights through the portal. This street light automation will prevent the admin to manually turn on/off the street lights. The street lights will be turned on-off by the click of a button. There will be a separate button for each light and the admin can control them individually, hence making the street light system automated.

So, the webapp will help the user to monitor the street light system as well as to control the lights without actually visiting the area. The analytics presented will help the authorities to better manage the street lighting system in smart cities by monitoring the energy consumption, current temp/humidity, up-time or down-time, current working/non-working lights etc. This can really save their time and efforts by helping to reduce the inconvenience faced by the people of that specific area.