**APPENDIX**

**Table Values**

Resources to create db:

User.sql=>contains the sql table creation and data to be inserted into created table

create table atmospheretable(

id int auto\_increment,

temperature smallint,

humidity smallint,

created\_time datetime,

raining\_value smallint unsigned,

PRIMARY KEY(id)

);

create table productdetailtable(

id int auto\_increment,

fullname varchar(200),

color varchar(50),

mrp smallint,

discount smallint,

brand varchar(50),

waranty smallint,

podavailable boolean,

replaceperiod smallint,

category varchar(50),

PRIMARY KEY(id)

);

**3** **Connecting database to website:**

**Node index.js (Main java script file for )**

const express = require('express'); // express driver installation

const app = express();

const mysql = require('mysql'); //mysql driver installation

const dbcon = mysql.createConnection({

'host':'localhost', //creating a connection to a database

'port':3306,

'user':'root',

'database':'atmospheredb'

});

app.use(express.json());

app.use(express.static('public'));

dbcon.connect(function(err,res){

if(err) {

console.log("err",err);

}else{

console.log("success");

}

});

app.get('/api/getdata', function(req,res){//

getData(req, res);

});

app.post('/api/putdata', function(req,res){

putData(req.body, res);

});

function getData(req,res){

dbcon.query('select \* from atmospheretable order by created\_time desc limit 1;',function(error,result){

if(error)

{

res.send(error);

}else

{

res.send(result.length?result[0]:result);

}

});

}

//insert into atmosphere tables the values

function putData(req,res){

dbcon.query('insert into atmospheretable (temperature,humidity,created\_time) values (?,?,now()) ;',[req.temperature,req.humidity],function(error,result){

if(error) {

res.send(error);

}else {

res.send(result.length?result[0]:result);

}

});

}

app.listen(3001, () => console.log('Server running on port 3001')); //acknowledgement to the user that server is running.

**6.4.4 MQTT setup**

import ast

import paho.mqtt.client as mqtt

import ConfigParser

import simplejson as json

import logging

import datetime

import pymysql

LOG\_FILENAME = 'FeedbackServer.log'

logging.basicConfig(filename=LOG\_FILENAME,level=logging.DEBUG,format='%(asctime)s, %(levelname)s, %(message)s', datefmt='%Y-%m-%d %H:%M:%S')

class MQtt:

def \_\_init\_\_(self,host,port,subTopic,cur,db,timealive=60):

self.host = host

self.port = port

self.timealive = timealive

self.payload = None

self.subTopic = subTopic

self.pubTopic = "feedback-serv"

self.cur = cur

self.db = db

def \_\_on\_connect(self,client, userdata, flags, rc):

try:

print "Connected with result code "+str(rc)

if self.subTopic!=None:

(result,mid)= client.subscribe(self.subTopic)

print result

except Exception as e:

logging.error("The on\_connect error %s,%s"%(e,type(e)))

def \_\_on\_message(self,client, userdata, msg):

try:

data = msg.payload

message = ast.literal\_eval(data)

temperature = int(message["temperature"])

humidity = int(message["humidity"])

print temperature,humidity

insertStatement = "INSERT INTO atmospheretable (id,temperature,humidity,created\_time) VALUES (default,"+str(temperature)+","+str(humidity)+",now());"

print insertStatement

try:

self.cur.execute(insertStatement)

except Exception as e:

print e

except Exception as e:

print e

logging.error("The on\_message error %s,%s"%(e,type(e)))

def connect(self):

try:

self.mqttc = mqtt.Client()

self.mqttc.on\_connect = self.\_\_on\_connect

self.mqttc.on\_message = self.\_\_on\_message

self.mqttc.connect(self.host,self.port,self.timealive)

if self.subTopic != None:

print "Hu"

self.mqttc.loop\_start()

self.mqttc.loop\_forever()

except Exception as e:

logging.error("The connect error %s,%s"%(e,type(e)))

def send(self,message):

try:

(result,mid) = self.mqttc.publish(self.pubTopic,message,2)

return result

except Exception as e:

print e

logging.error("The send error %s,%s"%(e,type(e)))

if \_\_name\_\_ == '\_\_main\_\_':

# Mysql details

host = "localhost"

database = "atmospheredb"

table = "atmospheretable"

db = pymysql.connect(host="localhost",db="atmospheredb",autocommit=True)

cur = db.cursor()

# MQTT DETIALS

host = "18.232.46.180"

port = 1883

subTopic = "dht-resp"

mq = MQtt(host,port,subTopic,cur,db)

mq.connect()

**6.4.5 Storing Atmosphere Details into Database table**

import pymysql

import time

host = "localhost"

db = pymysql.connect(host="localhost",db="atmospheredb",autocommit=True)

cur = db.cursor()

temperature = 64

humidity = 36

print temperature,humidity

insertStatement = "INSERT INTO atmospheretable (id,temperature,humidity,created\_time) VALUES (default,"+str(temperature)+","+str(humidity)+",now());"

print insertStatement

try:

cur.execute(insertStatement)

time.sleep(10)

except Exception as e:

print e

sqlQuery = "select \* from atmospheretable;"

#Fetch all the rows - for the SQL Query

cur.execute(sqlQuery)

rows = cur.fetchall()

for row in rows:

print(row)

**Html code for our website**

<!doctype html>

<html lang="en">

<head>

<meta charset="utf-8">

<title>Commercial</title>

<meta content="width=device-width, initial-scale=1.0" name="viewport">

<meta content="" name="keywords">

<meta content="" name="description">

<!-- Favicons -->

<link href="img/img1.jpg" rel="icon">

<!-- Google Fonts -->

<link href="https://fonts.googleapis.com/css?family=Open+Sans:300,400,400i,600,700|Raleway:300,400,400i,500,500i,700,800,900" rel="stylesheet">

<!-- Bootstrap CSS File -->

<link href="lib/bootstrap/css/bootstrap.min.css" rel="stylesheet">

<!-- Libraries CSS Files -->

<link href="lib/nivo-slider/css/nivo-slider.css" rel="stylesheet">

<link href="lib/owlcarousel/owl.carousel.css" rel="stylesheet">

<link href="lib/owlcarousel/owl.transitions.css" rel="stylesheet">

<link href="lib/font-awesome/css/font-awesome.min.css" rel="stylesheet">

<link href="lib/animate/animate.min.css" rel="stylesheet">

<link href="lib/venobox/venobox.css" rel="stylesheet">

<!-- Nivo Slider Theme -->

<link href="css/nivo-slider-theme.css" rel="stylesheet">

<!-- Main Stylesheet File -->

<link href="css/style.css" rel="stylesheet">

<!-- Responsive Stylesheet File -->

<link href="css/responsive.css" rel="stylesheet">

<style>

.grid-container {

display: grid;

grid-template-columns: auto auto auto auto;

grid-gap: 10px;

background-color:hsl(0, 100%, 90%);;

padding: 10px;

}

}

</style>

</head>

<body data-spy="scroll" data-target="#navbar-example">

<div id="preloader"></div>

<header>

<!-- header-area start -->

<div id="sticker" class="header-area">

<div class="container">

<div class="row">

<div class="col-md-12 col-sm-12">

<!-- Navigation -->

<nav class="navbar navbar-default">

<!-- Brand and toggle get grouped for better mobile display →

<div class="navbar-header">

<button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target=".bs-example-navbar-collapse-1" aria-expanded="false">

<span class="sr-only">Toggle navigation</span>

<span class="icon-bar"></span>

<span class="icon-bar"></span>

<span class="icon-bar"></span>

</button>

<!-- Brand -->

<a class="navbar-brand page-scroll sticky-logo" href="index.html">

<h1>Flipkart</h1>

<!-- Uncomment below if you prefer to use an image logo -->

<!-- <img src="img/logo.png" alt="" title=""> -->

</a>

</div>

<!-- Collect the nav links, forms, and other content for toggling -->

<div class="collapse navbar-collapse main-menu bs-example-navbar-collapse-1" id="navbar-example">

<ul class="nav navbar-nav navbar-right">

<li class="active">

<a class="page-scroll" href="#home">Home</a>

</li>

<li>

<a class="page-scroll" href="#about">Sales</a>

</li>

<li>

<a class="page-scroll" href="iot.html">IOT</a>

</li>

<li>

<a class="page-scroll">Dashboard</a>

</li>

<li>

<a class="page-scroll">Cart</a>

</li>

</ul>

</div>

<!-- navbar-collapse -->

</nav>

<!-- END: Navigation -->

</div>

</div>

</div>

</div>

<!-- header-area end -->

</header>

<!-- header end -->

<!-- Start Slider Area -->

<div id="home" class="slider-area">

<div class="bend niceties preview-2">

<div id="ensign-nivoslider" class="slides">

<img src="img/slider/img3.jpg" alt="" title="#slider-direction-1" />

<img src="img/slider/img4.png" alt="" title="#slider-direction-2" />

<img src="img/slider/img5.png" alt="" title="#slider-direction-3" />

</div>

<!-- End Slider Area -->

</div>

</div>

<!-- direction 1 -->

<div id="slider-direction-1" class="slider-direction slider-one">

<div class="container">

<div class="row">

<div class="col-md-12 col-sm-12 col-xs-12">

<div class="slider-content">

<!-- layer 1 -->

<div class="layer-1-1 hidden-xs wow slideInDown" data-wow-duration="2s" data-wow-delay=".2s">

<h2 class="title1" style="color:#FF3855; text-shadow:1px 1px 1px grey;">The Best Sales </h2>

</div>

<!-- layer 2 -->

<div class="layer-1-3 hidden-xs wow slideInUp" data-wow-duration="2s" data-wow-delay=".2s">

<a class="ready-btn right-btn page-scroll" href="#services">See Offers</a>

<a class="ready-btn page-scroll" href="#about">Buy More</a>

</div>

</div>

</div>

</div>

</div>

</div><!-- direction 2 -->

<div id="slider-direction-2" class="slider-direction slider-two">

<div class="container">

<div class="row">

<div class="col-md-12 col-sm-12 col-xs-12">

<div class="slider-content">

<!-- layer 1 -->

<div class="layer-1-1 hidden-xs wow slideInDown" data-wow-duration="2s" data-wow-delay=".2s">

<h2 class="title1" style="color:#1B1B1B; text-shadow:1px 1px 1px grey;">The Best Sales and Offers</h2>

</div>

<!-- layer 2 -->

<div class="layer-1-2 wow slideInUp" data-wow-duration="2s" data-wow-delay=".1s">

<h1 class="title2" style="color:#1B1B1B; text-shadow:1px 1px 1px grey;">Hurray It's a Big Billion Day</h1>

</div>

<!-- layer 3 -->

<div class="layer-1-3 hidden-xs wow slideInUp" data-wow-duration="2s" data-wow-delay=".2s">

<a class="ready-btn right-btn page-scroll" href="#services">See Offers</a>

<a class="ready-btn page-scroll" href="#about">Buy More</a>

</div>

</div>

</div>

</div>

</div>

</div>

<!-- direction 1 -->

<div id="slider-direction-3" class="slider-direction slider-three">

<div class="container">

<div class="row">

<div class="col-md-12 col-sm-12 col-xs-12">

<div class="slider-content">

<!-- layer 1 -->

<div class="layer-1-1 hidden-xs wow slideInDown" data-wow-duration="2s" data-wow-delay=".2s">

<h2 class="title1" style="color:#1B1B1B;">Great Indian Sales</h2>

</div>

</div>

</div>

</div>

</div>

</div>

<!-- Start sales Area -->

<div class="grid-container">

<div class="container text-center" >

<div class="row">

<h2>Deals of the day</h2>

<!--<button id="btn\_click">view more</button!-->

</div>

</div>

</div>

<div class="row">

<div class="col-md-4 col-sm-3 col-xs-12">

<div class="single-team-member">

<a href="#">

<img src="img/sales/14.jpg" alt="">

</a>

<div class="team-social-icon text-center">

<ul>

<li>

<a href="#">

<i class="fa fa-gittip"></i>

</a>

</li>

</ul>

</div>

</div>

<div class="team-content text-center">

<h4>Technology in next level</h4>

<p>Offer today</p>

<p>₹5400 48%off</p>

</div>

</div>

<!-- End column -->

<!-- <div class="team-top"> -->

<div class="col-md-4 col-sm-3 col-xs-12">

<div class="single-team-member">

<a href="#">

<img src="img/sales/12.jpg" alt="">

</a>

<div class="team-social-icon text-center">

<ul>

<li>

<a href="#">

<i class="fa fa-gittip"></i>

</a>

</li>

</ul>

</div>

</div>

<div class="team-content text-center">

<h4>shoes & more</h4>

<p>₹690 60% off</p>

</div>

</div>

<!-- End column -->

<!-- <div class="team-top"> -->

<div class="col-md-4 col-sm-3 col-xs-12">

<div class="single-team-member">

<a href="#">

<img src="img/sales/13.jpg" alt="">

</a>

<div class="team-social-icon text-center">

<ul>

<li>

<a href="#">

<i class="fa fa-gittip"></i>

</a>

</li>

</ul>

</div>

</div>

<div class="team-content text-center">

<h4>Girls Fashion wear</h4>

<p>₹250 74% off</p>

</div>

</div>

</div>

<!-- End column -->

</div>

</div>

</div>

</div>

<!-- End Team Area -->

<!-- Start About area -->

<div id="about" class="about-area area-padding">

<div class="container">

<div class="row">

<div class="col-md-12 col-sm-12 col-xs-12">

<div class="section-headline text-center">

<h2>Great Sales and Exclusive Offers</h2>

</div>

</div>

</div>

<div class="row">

<!-- Start Portfolio -page -->

<div class="awesome-project-1 fix">

<div class="col-lg-12 col-md-12 col-sm-12 col-xs-12">

<div class="awesome-menu ">

<ul class="project-menu">

<li>

<a href="#" class="active" data-filter="\*">All</a>

</li>

<li>

<a href="#" data-filter=".design">Acsessories</a>

</li>

<li>

<a href="#" data-filter=".photo">electronics</a>

</li>

</ul>

</div>

</div>

</div>

<div class="awesome-project-content">

<!-- single-awesome-project start -->

<div class="col-md-4 col-sm-4 col-xs-12 design development">

<div class="single-awesome-project">

<div class="awesome-img">

<a href="#"><img src="img/sales/kitchen.jpg" alt="" /></a>

<div class="add-actions text-center">

<div class="project-dec">

<a class="venobox" data-gall="myGallery" href="img/sales/kitchen.jpg">

<h4>Kitchen Items 50% off</h4>

</a>

</div>

</div>

</div>

</div>

</div>

<!-- single-awesome-project end -->

<!-- single-awesome-project start -->

<div class="col-md-4 col-sm-4 col-xs-12 design">

<div class="single-awesome-project">

<div class="awesome-img">

<a href="#"><img src="img/sales/winter.jpg" alt="" /></a>

<div class="add-actions text-center">

<div class="project-dec">

<a class="venobox" data-gall="myGallery" href="img/sales/winter.jpg">

<h4>Winter shopping</h4>

</a>

</div>

</div>

</div>

</div>

</div>

<!-- single-awesome-project end -->

<!-- single-awesome-project start -->

<div class="col-md-4 col-sm-4 col-xs-12 photo development">

<div class="single-awesome-project">

<div class="awesome-img">

<a href="#"><img src="img/sales/accessories.jpg" alt="" /></a>

<div class="add-actions text-center">

<div class="project-dec">

<a class="venobox" data-gall="myGallery" href="img/sales/accessories.jpg">

<h4>Gadgets</h4>

<span>On sales</span>

</a>

</div>

</div>

</div>

</div>

</div>

<!-- single-awesome-project end -->

<!-- single-awesome-project start -->

<div class="col-md-4 col-sm-4 col-xs-12 design">

<div class="single-awesome-project">

<div class="awesome-img">

<a href="#"><img src="img/sales/7.jpeg" alt="" /></a>

<div class="add-actions text-center">

<div class="project-dec">

<a class="venobox" data-gall="myGallery" href="img/sales/7.jpeg">

<h4>Fashion Week</h4>

<span>40% sales</span>

</a>

</div>

</div>

</div>

</div>

</div>

<!-- single-awesome-project end -->

<!-- single-awesome-project start -->

<div class="col-md-4 col-sm-4 col-xs-12 photo development">

<div class="single-awesome-project">

<div class="awesome-img">

<a href="#"><img src="img/sales/galaxy.jpg" alt="" /></a>

<div class="add-actions text-center">

<div class="project-dec">

<a class="venobox" data-gall="myGallery" href="img/sales/galaxy.jpg">

<h4>Galaxy</h4>

<span>On sales</span>

</a>

</div>

</div>

</div>

</div>

</div>

<!-- single-awesome-project end -->

<div class="col-md-4 col-sm-4 col-xs-12 design">

<div class="single-awesome-project">

<div class="awesome-img">

<a href="#"><img src="img/sales/2.jpg" alt="" /></a>

<div class="add-actions text-center">

<div class="project-dec">

<a class="venobox" data-gall="myGallery" href="img/sales/2.jpg">

<h4>Handbags and clutches</h4>

<span>30% OFF</span>

</a>

</div>

</div>

</div>

</div>

</div>

<!-- single-awesome-project end -->

<!-- single-awesome-project start -->

<div class="col-md-4 col-sm-4 col-xs-12 photo development">

<div class="single-awesome-project">

<div class="awesome-img">

<a href="#"><img src="img/sales/3.jpg" alt="" /></a>

<div class="add-actions text-center">

<div class="project-dec">

<a class="venobox" data-gall="myGallery" href="img/sales/3.jpg">

<h4>Redmi on sales</h4>

</a>

</div>

</div>

</div>

</div>

</div>

<!-- single-awesome-project end -->

</div>

</div>

</div>

</div>

<!-- awesome-portfolio end -->

<!-- our-skill-area start -->

<div class="our-skill-area fix hidden-sm">

<div class="test-overly"></div>

<div class="skill-bg area-padding-2">

<div class="container">

<!-- section-heading end -->

<div class="row">

<div class="skill-text">

<!-- single-skill start -->

<div class="col-xs-12 col-sm-3 col-md-3 text-center">

<div class="single-skill">

<div class="progress-circular">

<input type="text" class="knob" value="0" data-rel="85" data-linecap="round" data-width="175" data-bgcolor="#fff" data-fgcolor="#3EC1D5" data-thickness=".20" data-readonly="true" disabled>

<h3 class="progress-h4">New Year sales</h3>

</div>

</div>

</div>

<!-- single-skill end -->

<!-- single-skill start -->

<div class="col-xs-12 col-sm-3 col-md-3 text-center">

<div class="single-skill">

<div class="progress-circular">

<input type="text" class="knob" value="0" data-rel="80" data-linecap="round" data-width="175" data-bgcolor="#fff" data-fgcolor="#3EC1D5" data-thickness=".20" data-readonly="true" disabled>

<h3 class="progress-h4">Xmas sales</h3>

</div>

</div>

</div>

<!-- single-skill end -->

<!-- single-skill start -->

<div class="col-xs-12 col-sm-3 col-md-3 text-center">

<div class="single-skill">

<div class="progress-circular">

<input type="text" class="knob" value="0" data-rel="70" data-linecap="round" data-width="175" data-bgcolor="#fff" data-fgcolor="#3EC1D5" data-thickness=".20" data-readonly="true" disabled>

<h3 class="progress-h4">Diwali Sales</h3>

</div>

</div>

</div>

<!-- single-skill end -->

<!-- single-skill start -->

<div class="col-xs-12 col-sm-3 col-md-3 text-center">

<div class="single-skill">

<div class="progress-circular">

<input type="text" class="knob" value="0" data-rel="60" data-linecap="round" data-width="175" data-bgcolor="#fff" data-fgcolor="#3EC1D5" data-thickness=".20" data-readonly="true" disabled>

<h3 class="progress-h4">Dushera Sales</h3>

</div>

</div>

</div>

<!-- single-skill end -->

</div>

</div>

</div>

</div>

</div>

<!-- our-skill-area end -->

<!-- Start Footer bottom Area -->

<footer>

<div class="footer-area">

<div class="container">

<div class="row">

<div class="col-md-4 col-sm-4 col-xs-12">

<div class="footer-content">

<div class="footer-head">

<div class="footer-logo">

<h2>Flipkart</h2>

</div>

<p>Commercial sales and offers where you can meet all the accessories of goods and products</p>

<div class="footer-icons">

<ul>

<li>

<a href="#"><i class="fa fa-facebook"></i></a>

</li>

<li>

<a href="#"><i class="fa fa-twitter"></i></a>

</li>

<li>

<a href="#"><i class="fa fa-google"></i></a>

</li>

</ul>

</div>

</div>

</div>

</div>

<!-- end single footer -->

<div class="col-md-4 col-sm-4 col-xs-12">

<div class="footer-content">

<div class="footer-head">

<h4>information</h4>

<div class="footer-contacts">

<p><span>Tel:</span> +123 456 789</p>

<p><span>Email:</span> srisimhadri345@gmail.com</p>

<p><span>Working Hours:</span> 9am-5pm</p>

</div>

</div>

</div>

</div>

</div>

</div>

</div>

</footer>

<a href="#" class="back-to-top"><i class="fa fa-chevron-up"></i></a>

<!-- JavaScript Libraries -->

<script src="lib/jquery/jquery.min.js"></script>

<script src="lib/bootstrap/js/bootstrap.min.js"></script>

<script src="lib/owlcarousel/owl.carousel.min.js"></script>

<script src="lib/venobox/venobox.min.js"></script>

<script src="lib/knob/jquery.knob.js"></script>

<script src="lib/wow/wow.min.js"></script>

<script src="lib/parallax/parallax.js"></script>

<script src="lib/easing/easing.min.js"></script>

<script src="lib/nivo-slider/js/jquery.nivo.slider.js" type="text/javascript"></script>

<script src="lib/appear/jquery.appear.js"></script>

<script src="lib/isotope/isotope.pkgd.min.js"></script>

<!-- Contact Form JavaScript File -->

<script src="contactform/contactform.js"></script>

<script src="js/main.js"></script>

</body>

</html>

**5.2 IOT page code**

**Html code for IOT web page**

<html>

<head>

<title>

Atmosphere Data

</title>

<style>

body {

text-align:center;

}

.sensor{

background-color: black;

padding: 20px;

font-size: 35px;

color: white;

margin: 10px;

padding: 10px;

}

table, th, td {

border: 2px solid black;

border-collapse: collapse;

padding: 20px;

margin: 20px;

margin-left:auto;

margin-right:auto;

}

</style>

</head>

<body onload="updateValues()">

<div class="sensor">

<h2 style=" text-align: center;">Atmosphere</h2>

</div>

<table style="width:50%" bgcolor="gainsboro" align="center">

<tr>

<th><h3 id="temperature">Temperature : </h3></th>

</tr>

<tr>

<th><h3 id="humidity">Humidity : </h3></th>

</tr>

</table>

<script>

function updateValues() {

setInterval(function() {

getData();

},4000);

}

function getData() {

var xhttp = new XMLHttpRequest();

xhttp.onreadystatechange=function() {

if (this.readyState == 4 && this.status == 200) {

let response=JSON.parse(this.response);

document.getElementById("temperature").innerHTML = "Temperature : " + response.temperature;

document.getElementById("humidity").innerHTML = "Humidity : " + response.humidity;

}

};

xhttp.open("GET", "/api/getdata", true);

xhttp.send();

}

function putData(temp,humd){

var xhttp = new XMLHttpRequest();

xhttp.onreadystatechange=function() {

};

xhttp.open("POST", "/api/putdata", true);

xhttp.setRequestHeader("Content-type", "application/json");

xhttp.send(JSON.stringify({temperature:temp,humidity:humd}));

}

</script>

</body>

</html>