**ENGINEERING JOURNAL TEMPLATE**

# Date

02-06th March

# Solutions

*Software:*

Created a Schema which will talk to the database Mongo

var mongoose = require('mongoose');

var rideSchema = mongoose.Schema({//data structure writing into db

    d\_id: String,

    s\_time: Number,

    name: String,

    cond: String,

    data:   [{

            speed: {

                type: String,

                required: true

            },

            rpm: {

                type: String,

                required: true

            },

            time: {

                type: Date,

                default: Date.now

            },

            distance: String,

            average: String,

            maximum: String,

    }]

});

var Ride = module.exports = mongoose.model('ride', rideSchema);

The Date. now() is an inbuilt function in JavaScript which returns the number of milliseconds elapsed since January 1, 1970

Also started on creating an mqtt client onnecting to the mqtt broker

I have called it mqttHandler.js

var mqtt = require('mqtt');//sudo npm install = downloaded  necessary libraries

var rideController = require('./rideController');

var  treshold\_time  =  20 // The minimum time allowed for a ride to be marked as ended

var broker = 'mqtt://farmer.cloudmqtt.com:11836';

var user = "gevhoohx";

var pass = "C3pzwLvEM5ns";

var devices = {}; //device object

var connectedToBroker = false;

var options = {

    username : user,

    password : pass

};

After much research I am going to use JSON, AJAX & jQuery (try to use Bootstrap as there is a lot you can play around with)

I think my previous idea of organizing the rides by dates will not work as what if a cyclist goes for two rides in one day.

After talking with lads in the course I think the best bet is to go by giving everything an ID, and just like I have 10 second timer in the python script for the app to revert it back to 0 if it is idle, I will have a threshold time and if the bike is static for over that time it will be a new ride