1/16/2021

Solar Car Team GUI Competition

Task:

* Build a GUI using a framework of your choice (React, Angular, Vue, SceneBuilder, etc...)
* For now, use mock data that is stored in a database of your choice.
* Figure out a way to make the data look live (pull a random element from the database, multiply the value in the database by a randomly generated float

Requirements:

**Note:** These are basic requirements. Make sure your dashboard is scalable.

* Screen showing all 36 battery cells and their voltages.
  + For example, invision this as a dict in format {cell# : voltage}
* Current position of car in Latitude/Longitude. Would be cool if you were able to translate the coordinates onto a map
* Speed of car in MPH (bonus points for a cool speedometer)
* RPM of motor
* Current amperage consumption
* Voltage of battery pack
* Odometer
* “Power Trackers”, which is the current voltage being pulled from each (6) solar panel arrays. Ex: {Panel1 : 12.4V}
* Acceleration Pedal Pressed Percentage
* Error Code Panel (Low Voltage, Over Amperage, etc…)

Examples/Inspiration:

Check out this research paper by the solar car team at Missouri S&T University on databases

[DATA COLLECTION FOR SOLAR CAR TELEMETRY DATA](https://solarcar.mst.edu/wp-content/uploads/sites/14/2019/10/Data-Collection-and-Analysis-Techniques-for-Solar-Car-Telemetry-Data.pdf)

