Parkme Data Management

Overview

This contains code for the management and display of data across the Parkme custom hardware parking monitor and two main display endpoints: 1. **User Client:** custom web client for viewing parking accessablilty 2. **Admin Client:** grafan web client for viewing parking usage data over time, as well as monitoring parking habits

Admin Data

1. Lot popularity
2. per hour per lot spot occupancy
3. per day per lot avg nof cars at a given time. (whole year)
4. current occupancy
5. map of most used locations

Client Data

1. Current occupancy
2. Open spot locations

Data Structure

Lot

```
{
  "lot_id": uuid4,
  "name": str,
  "nof_spots": int,
  "location": gps,
  "desc": str
}
```

ParkMe Module

```
{
  "location": gps,
  "report_ms": int
}
```

Report

```json
{
  "lot_id": uuid4,
  "space_id": uuid4,
  "parkme_id": uuid4,
  "ts": time,
  "is_full": bool
}
```

Space

```json
{
  "lot_id": uuid4,
  "space_id": uuid4,
  "location": gps
}
```