

## **DATA SCIENTIST:**

## TAKE-HOME TEST EXERCISE

In this document we describe a real world data set. The dataset aggregates data transmitted from a number of cars while they are driving around. Towards the end of the document there are questions for you to answer about the dataset.

## 1. Dataset Description

The dataset contains a row for each trip taken by a device user. The dataset contains the following self-explanatory variables (among others):

**device\_key** This is a unique identifier for the device transmitting the data.

**start\_point\_latitude** This is the latitude of starting point of the trip. There is also an end point latitude.

**start\_point\_longitude** This is the longitude of the starting point of the trip. There is also an end point longitude.

**start\_point\_timestamp** This is the unix timestamp of the beginning of the trip.

## 2. Questions

For the below questions, perform the task required in Python or R. Please supply the code implementing your solutions.

- 1. The data may be dirty. Clean it.
- 2. Suggest some predictive analytics that can be done on this dataset.
- 3. Implement your chosen piece of predictive analytics.
- 4. What are the three top ways you would have improved this project, had you had more time?

