

## Use Case 5: GPS Data

### *Business Case:*

GoTrack allows tracking of mobile devices. There are data from users describing general attributes of the devices, evaluations and characteristics of the trajectory. For each trajectory

The dataset has been feed by Android app called Go!Track. It is available at Goolge Play Store([Web Link](#)).

### **Source:**

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### *Analysis Goals:*

- Understanding and grouping the different tracks.

### *Data:*

#### **Data Set Information:**

The dataset is composed by two tables. The first table `go_track_tracks` presents general attributes for each track instance and each instance has one trajectory that is represented by the table `go_track_trackspoints`.

#### **Attribute Information:**

- (1) `go_track_tracks.csv`: a list of trajectories

**id**

**id\_android** - it represents the device used to capture the instance;

**speed** - it represents the average speed (Km/H)

**time** - travel time

**distance** - it represent the total distance (Km)

**rating** - it is an evaluation parameter. Evaluation the traffic is a way to verify the volunteers perception about the traffic during the travel, in other words, if volunteers move to some place and face traffic jam, maybe they will evaluate 'bad'. (3- good, 2- normal, 1-bad).

**rating\_bus** - it is other evaluation parameter. (1 - The amount of people inside the bus is little, 2 - The bus is not crowded, 3- The bus is crowded.

**rating\_weather** - it is another evaluation parameter. ( 2- sunny, 1- raining).

**car\_or\_bus** - (1 - car, 2-bus)

**linha** - information about the bus that does the pathway

- (2) `go_track_trackspoints.csv`: localization points of each trajectory

**id**: unique key to identify each point

**latitude**: latitude from where the point is

**longitude**: longitude from where the point is

**track\_id**: identify the trajectory which the point belong

**time**: datetime when the point was collected (GMT-3)

### **Data Task:**

- Proposal for setting up a data structure for the project

### **Business and Data Understanding Task:**

#### **Application Environment:**

- Size and Scope of the business
- What kind of application scenario is possible?

#### **Business Perspective:**

- What are the business perspectives of interest?
- Who is the owner of the business process?
- Who are the process subjects

#### **BI Views:**

- What BI-Views are defined by the data?

#### **Analytical goals:**

- Formulate KPIs and find possible influential factors
- Formulate some analytical goals

#### **Assessment of Data:**

- Ideas for data assessment

#### **Modeling Task:**

- Do you have any ideas and proposals?

#### **Analysis Task:**

- Do you know any analysis techniques?