TIER

Case Study

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Please review the attached data set and answer the questions below. Create a presentation of **no more than 7 slides.**

1. Walk us through the data. Here are some questions you may wish to examine:
    a. Based on our trip data, which are our top performing zones and which are our worst performing zones?
    b. Where & when is our missed demand (unconverted sessions) highest?
    c. What is our vehicle availability by zone? How does battery health impact this metric?
2. Based on your analysis, what areas would you focus on in order to improve overall performance in this city? What levers do you think can impact these focus areas?
3. How would you ensure that the dashboards, tools and custom reports we create in Operations Intelligence are used for data-driven decisions by cities and stakeholders?

Submission deadline: Please return your completed presentation by email in PDF format to **sophie.wieckowski@tier.app** by the deadline communicated to you.

Reference Materials

You have been provided with 2 datasets for a city in Europe, covering a 2-week period earlier this year. The city is subdivided into 35 zones, numbered A to AI.

Hints:

- A session is any app open or group of app opens within a 15-min period
- A converted session is an app open which converts into a paid trip
- Sessions which convert into trips are indicated by a “1” in column E. Sessions which do not convert into trips are indicated by a “0” in column E
- A vehicle drains approx. 1% of its battery per trip minute. Vehicles are unavailable for customer use below 20% battery
- In any given day, an active vehicle is defined as one which is either used for at least 1 trip, or available for customer use for at least 3 hours during that day
- A zeroed vehicle is one that is available for customer use but is not used that day
- An inactive vehicle is one which is unavailable for customer use in a given day
- A vehicle is considered decayed if it is offline outside of a warehouse for at least 7 days
- In order to avoid double counting, a vehicle is allocated each day to the zone in which it spent the majority of that day

Dataset A: List of sessions for 2 weeks

- Date
- Hour of day
- Distance to vehicle
- Converted to trip 1/0
- Trip start zone
- Trip end zone (if converted to trip)
- Battery starting %
- Battery ending %

Dataset B: List of KPIs per day for 2 weeks

- Date
- Zone
- Demand (sessions)
- Unconverted demand
- Trip starts
- Trip ends
- Active vehicles
- Zeroed vehicles
- Inactive vehicles
- Decayed vehicles