**Business Insights:**

* The data is given from the period **'2018-09-12 00:00:16' to '2018-10-08 03:00:24'**.
* There are about **14817 unique trip IDs**, **1508 unique source centers**, **1481 unique destination centers**, **735 unique source cities**, **856 unique destination cities**.
* Most of the data is for **testing** than for training.
* Most common route type is **Carting**.
* The names of **14 unique location ids** are missing in the data.
* The number of trips start increasing after the **noon**, becomes maximum at **10 P.M** and then start decreasing.
* Most orders come **mid-month**. That means customers usually make more orders in the **mid of the month.**
* Most orders are sourced from the states like **Maharashtra, Karnataka, Haryana, Tamil Nadu, Telangana**
* Maximum number of trips originated from **Gurgaon** city followed by **Bengaluru** and **Bhiwandi**. That means that the seller base is strong in these cities.
* Maximum number of trips ended in **Maharashtra** state followed by **Karnataka, Haryana, Tamil Nadu and Uttar Pradesh**. That means that the number of orders placed in these states is significantly high.
* Maximum number of trips ended in **Bengaluru** city followed by **Mumbai, Gurgaon, Delhi and Chennai**. That means that the number of orders placed in these cities is significantly high.
* Features actual\_time & osrm\_time are **statitically different**.
* Features start\_scan\_to\_end\_scan and segment\_actual\_time are **statistically similar**.
* Features osrm\_distance and segment\_osrm\_distance are **statistically different from each other**.
* Both the osrm\_time & segment\_osrm\_time are **not statistically same**.

**Recommendations**

* The **OSRM trip planning system** requires optimization, as current discrepancies indicate potential inefficiencies. The **routing engine configuration** should be reviewed to ensure it delivers **optimal route predictions** for transporters.
* A noticeable gap exists between **OSRM time** and **actual delivery time**. The team should focus on minimizing this difference to enable **more accurate delivery time predictions**, improving **customer experience and reliability**.
* The mismatch between **OSRM distance** and **actual distance traveled** suggests that either **delivery personnel are deviating from the planned route** or the **OSRM system isn’t accurately accounting for factors** such as **traffic and route conditions**. The team should investigate these discrepancies to **enhance route accuracy and delivery efficiency**.