

# Insights and Recommendations

## **Insights:-**

- Since data scientist team wants to create a forecasting model, data set is already been divided into training (72%) and test data (28%)
- Entire data is of 26 days
- 20 source names and 18 destination names are missing in the data set. If drop those null values , it will lead to miscalculation for further analysis
- Highest number of trip creation is being done on wednesday and highest number of trip completion is being done on wednesday and saturday
- Highest number of trip creation and trip completion is being done during mid month and starts decreasing after that. Very low trip completion during 2nd week of month
- Highest number of trips are created and completed in 9th month
- 60 % trips are made through carting route and 40% trips are made through FTL
- Mumbai, Gurgaon and Bengaluru has done the more number of total trips(created and completed). Hence Maharashtra, Karnataka and Haryana has also done the more number of total trips.
- od\_total\_time and start\_scan\_to\_end\_scan are statistically similar with 95% confidence.
- With 95% confidence actual\_time and OSRM\_time are not similar. This will give wrong information to customers about the estimated delivery date.
- With 95 % confidence actual\_time and segment\_actual\_time are statistically different.
- osrm\_distance and segment\_osrm\_distance are statistically different with 95% confidence.
- osrm\_time and segment\_osrm\_time are also statistically different with 95% confidence.

## **Recommendations:-**

- An open-source routing engine(OSRM) for time, distance, segment time and distance calculator needs to be optimised to reduce the error between computed data and actual data to give a nearly right estimated information about delivery package.
- The reason for the difference between actual\_time and segment\_actual\_time can be due to the delivery person not taking the predefined route or not starting the trip on time after scanning. Teams need to look into it.
- Team should increase the number of delivery partners in mumbai, bengaluru and gurgaon during festival seasons.

