Ddelivery Time Historic Data

"Case study"

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Introduction

This project represents case study of analyzing historical Delivery Time Data.

- Historical data for Orders Delivery Times, including the Rating and the age of Captain, the geographical location of both restaurant and delivery location .

Data

1.EDA which exploring the data examining and understanding the characteristics of your dataset

2.Cleaning the data and make it more ready for the analysis and visualization

3.visualizing the data for gaining insights, identifying patterns, and communicating findings in a clear and effective manner

Objectives:

Tools:

EDA

Basic Information about the Dataset:

- few rows of the dataset to get an overview.

- the data types of each column.

- missing values.

- Summary of the dataset

```
# Display the first few rows
print(Data.head())


    ID Delivery_person_ID  Delivery_person_Age  Delivery_person_Ratings  \
0  4607       INDORES13DEL02                   37                      4.9
1  B379       BANGRES18DEL02                   34                      4.5
2  5D6D       BANGRES19DEL01                   23                      4.4
3  7A6A       COIMBRES13DEL02                  38                      4.7
4  70A2       CHENRES12DEL01                   32                      4.6

   Restaurant_latitude  Restaurant_longitude  Delivery_location_latitude  \
0            22.745049             75.892471                    22.765049
1            12.913041             77.683237                    13.043041
2            12.914264             77.678400                    12.924264
3            11.003669             76.976494                    11.053669
4            12.972793             80.249982                    13.012793

   Delivery_location_longitude Type_of_order Type_of_vehicle  Time_taken(min)
0                    75.912471          Snack      motorcycle               24
1                    77.813237          Snack         scooter               33
2                    77.688400         Drinks      motorcycle               26
```
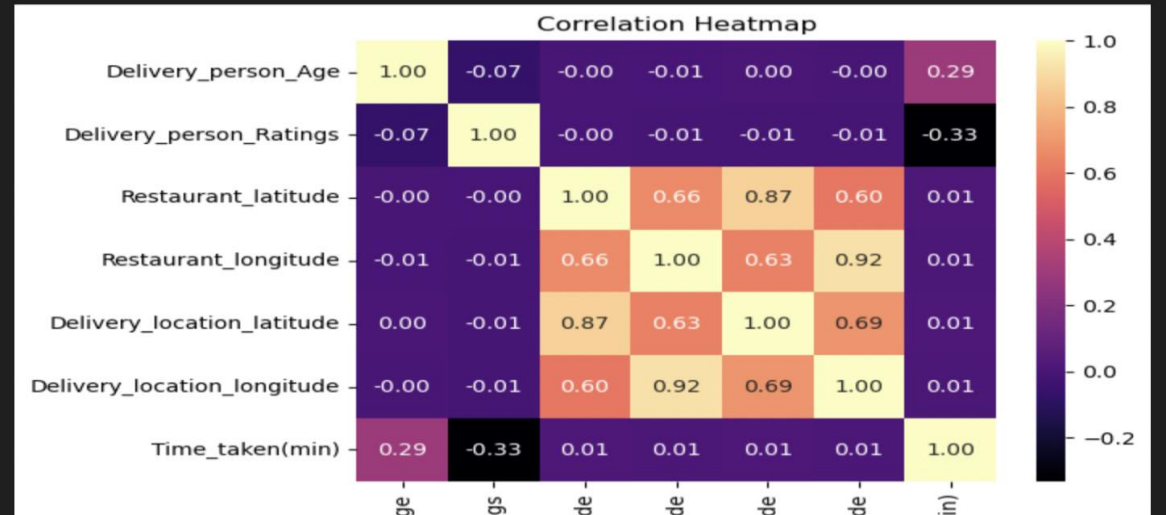
```
# Display data types
print(Data.info())
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 45593 entries, 0 to 45592
Data columns (total 11 columns):
 #   Column                       Non-Null Count  Dtype
---  ------                       --------------  -----
 0   ID                           45593 non-null  object
 1   Delivery_person_ID           45593 non-null  object
 2   Delivery_person_Age          45593 non-null  int64
 3   Delivery_person_Ratings      45593 non-null  float64
 4   Restaurant_latitude          45593 non-null  float64
 5   Restaurant_longitude         45593 non-null  float64
 6   Delivery_location_latitude   45593 non-null  float64
 7   Delivery_location_longitude  45593 non-null  float64
 8   Type_of_order                45593 non-null  object
 9   Type_of_vehicle              45593 non-null  object
 10  Time_taken(min)              45593 non-null  int64
dtypes: float64(5), int64(2), object(4)
memory usage: 3.8+ MB
```
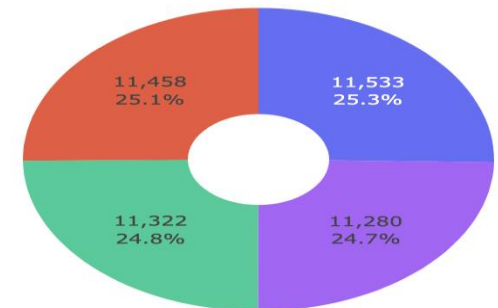
EDA visualization

- Histogram.
- Correlation Heatmap.
- Boxplot to identify outliers.


```
#Correlation heatmap
correlation_matrix = Data.corr()
sns.heatmap(correlation_matrix, annot=True, cmap='magma', fmt='.2f')
plt.title('Correlation Heatmap')
plt.show()
```
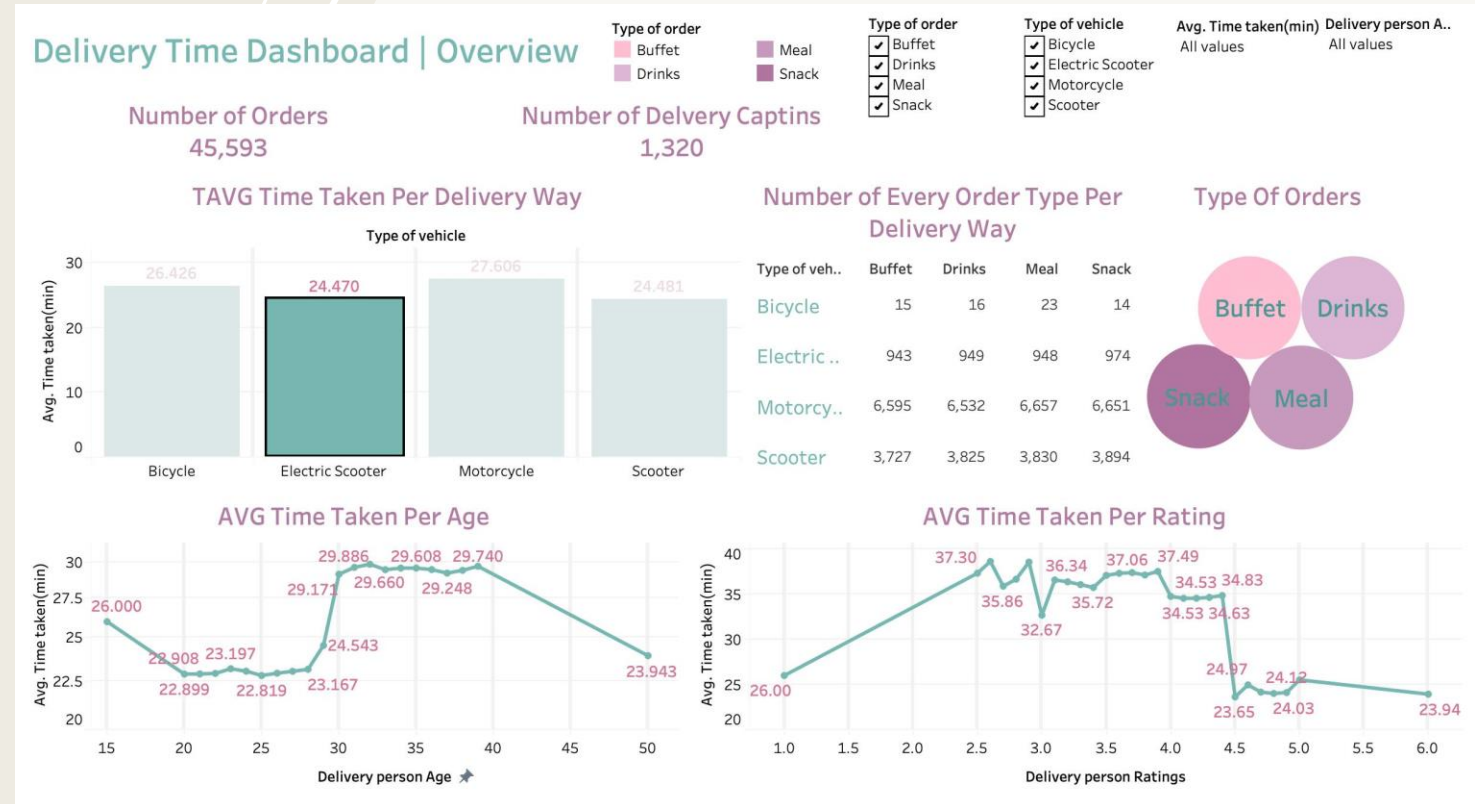


```
fig = px.pie(Data, names='Type_of_order', hole=.3, title='Type of orders distribution')
fig.update_traces(textposition='inside', textinfo='percent+value')
fig.show()
```

Creating the Dashboard Using Tableau

Access the live Dashboard By Clicking Here

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Thanks for your attention