Question 1 Max. score: 100.00

Predict time taken by delivery person

You are working as a data scientist at a food delivery company. The company wants to improve its system that calculates ETA for delivery persons. Rather than relying on some fixed method/formula, The management has decided to develop intelligent software that can predict the time of arrival for the delivery persons.

Task

Develop a machine learning model that can calculate the time taken by the delivery person to deliver the order, given relevant information.

Dataset description

- **train(folder) :** contains 45593 .txt files
- **test.csv:** contains 11399 .txt files
- **sample_submission.csv:** 5 x 2

The columns provided in the dataset are as follows:

Column name	Description
ID	Represents a unique identification of an entry.
Delivery_person_ID	Represents a unique identification of a delivery person.
Delivery_person_Age	Represents the age of a delivery person.
Delivery_person_Ratings	Represents the average ratings given to the delivery person. (1 to 5)
Restaurant_latitude	Represents the latitude of the restaurant.
Restaurant_longitude	Represents the longitude of the restaurant.
Delivery_location_latitude	Represents the latitude of the Delivery location.
Delivery_location_longitude	Represents the longitude of the Delivery location.
Order_Date	Represents the date when the order was placed.
Time_Orderd	Represents the time when the order was placed.
Time_Order_picked	Represents the time when the order was picked from the restaurant.
Weather conditions	Represent the weather conditions (Windy, Sunny, Cloudy, Stormy, Fog, Sandstorms, etc)
Road_traffic_density	Represents the road traffic density (Jam, High, Medium and Low)
Vehicle_condition	Represents the condition of the vehicle. (Smooth, good or average)
Type_of_order	Represents the type of order (Snack, Meal, Buffet, Drinks, etc)
Type_of_vehicle	Represents the type of vehicle one is using (motorbike, bicycle etc.)
multiple_deliveries	Represents the number of orders to be delivered in one attempt
Festival	Represents whether day is festive or not
City	Represents the city
Time_taken	Represents the time taken by the delivery person to deliver the order. [TARGET]

Evaluation metric

```
score = 100*(metrics.r2_score(actual , predicted))
```

Result submission guidelines

- The index is "**ID**" and the target is the "**Time_taken (min)**" column.
- The submission file must be submitted in ***.csv*** format only.
- The size of this submission file must be 11399 *x 2*.

Note: Ensure that your submission file contains the following:

- Correct index values as per the *test.csv* file
- Correct names of columns as provided in the *sample_submission.csv* file

Instructions:

- Click *Download dataset* to download the dataset.
- Solve the problem in your local environment.
- Save the submission in a *.csv* file.
- Click *Upload File* (under the *Upload File* section) to upload your prediction file (*.csv*).
- Click *Upload File* (under the *Upload Source Code* section) to upload your *.ipynb* file along with any presentation file.
- Add any instructions or comments in the *Your Answer* section.
- Click *Submit*.

Download dataset

New Submission | All Submissions

Upload File

Upload File | File size limit is 50 MB

Upload Source Code

Upload File

Your Answer

Write your answer here

Preview

Submit