VEMO Analytics Test



Trip activity - Analysis

The attached .csv file contains general trips information for a taxi fleet of 158 cars along one week, between 22/08/2022 05:00:00 to 29/08/2022 05:00:00.

There are a total of 364 drivers who could drive any car indistinctly during it shift.

Drivers should work for 9 hours, and rest for half an hour mid-shift.

Columns description:

Colu	mn Desc	ription
0	id_week	week index
1	id_driver	driver index
2	id_unit	vehicle index
3	trip_status	<pre>trip status (completed/cancelled)</pre>
4	trip_rev	trip revenue [\$]
5	trip_distance	trip distance [km]
6	time_on_trip	time on trip [min]
7	mean_speed	Mean speed during the trip [km/h]
8	id_shift	<pre>shift index (relative to driver & day worked)</pre>
9	request_datetime	trip request datetime
10	drop_datetime	trip drop datetime
11	trips_per_hour	Quantity of trips in one hour
12	shift_time	shift time (hour range)
13	rest_days	rest days
14	<pre>shift_str_datetime</pre>	trip start datetime

- 1) How many trips are completed each day of the week?
- 2) Which hour of the day generates the most revenue?
- 3) For the driver ID: 673 determine the mean time between trips (from one trip's drop_datetime, to the next trip's request_datetime).
- 4) If you had to fire one driver, who would it be? Indicate the Id_driver and the reasons that support your decision.

Bonus track

Do you find any correlation between the parameters in the dataset that have caught your eye?

Analyze the information using Python (Jupyter, Spyder, VCS or other) and send back the code used, and any graphs/comments generated via e-mail.

Good luck!