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Cottbus - Senftenberg

Exercise

Interpretation of Prediction Methods for Time Series

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1. How do you get hours and day of the week from date type?

2. Solve the problem:

ValueError: could not convert string to float: 'Clouds‘

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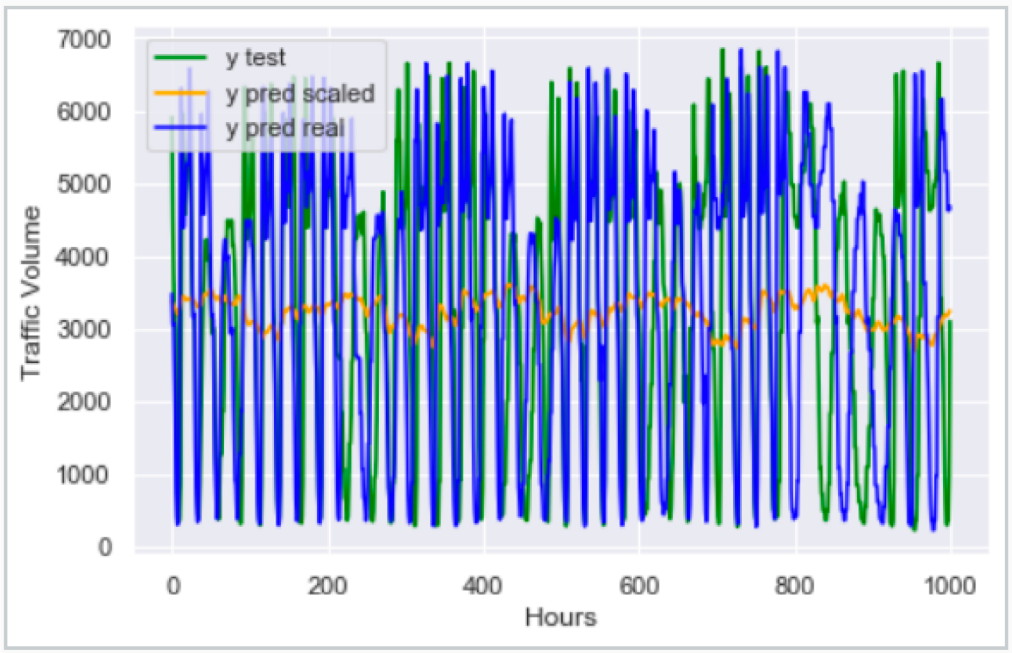
3. Plot the visualization of the traffic values y_test, y_pred_scaled and y_pred in the following manner



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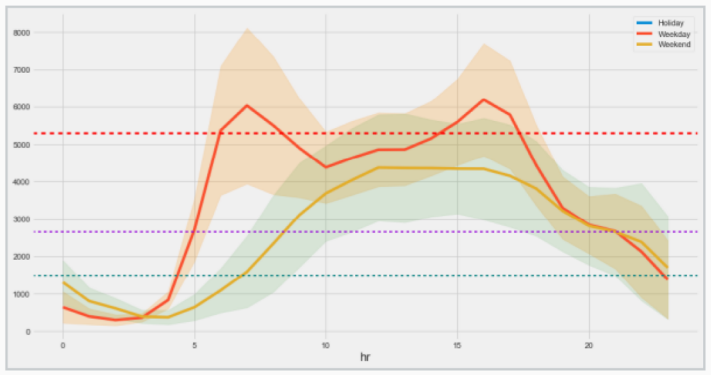
4. Why can't we see the holiday values in the diagram?

Print all holiday data sets.



	hr	dow	holiday	traffic_volume	type_of_day
126	0	0	Columbus Day	455	Holiday
1123	0	0	Veterans Day	1000	Holiday
1370	0	3	Thanksgiving Day	919	Holiday
2360	0	1	Christmas Day	803	Holiday
2559	0	1	New Years Day	1439	Holiday
...	..	...	...	...	...
44441	0	0	Memorial Day	1088	Holiday
45547	0	2	Independence Day	1021	Holiday
46936	0	3	State Fair	596	Holiday
47330	0	0	Labor Day	962	Holiday
47331	0	0	Labor Day	962	Holiday

[61 rows x 5 columns]

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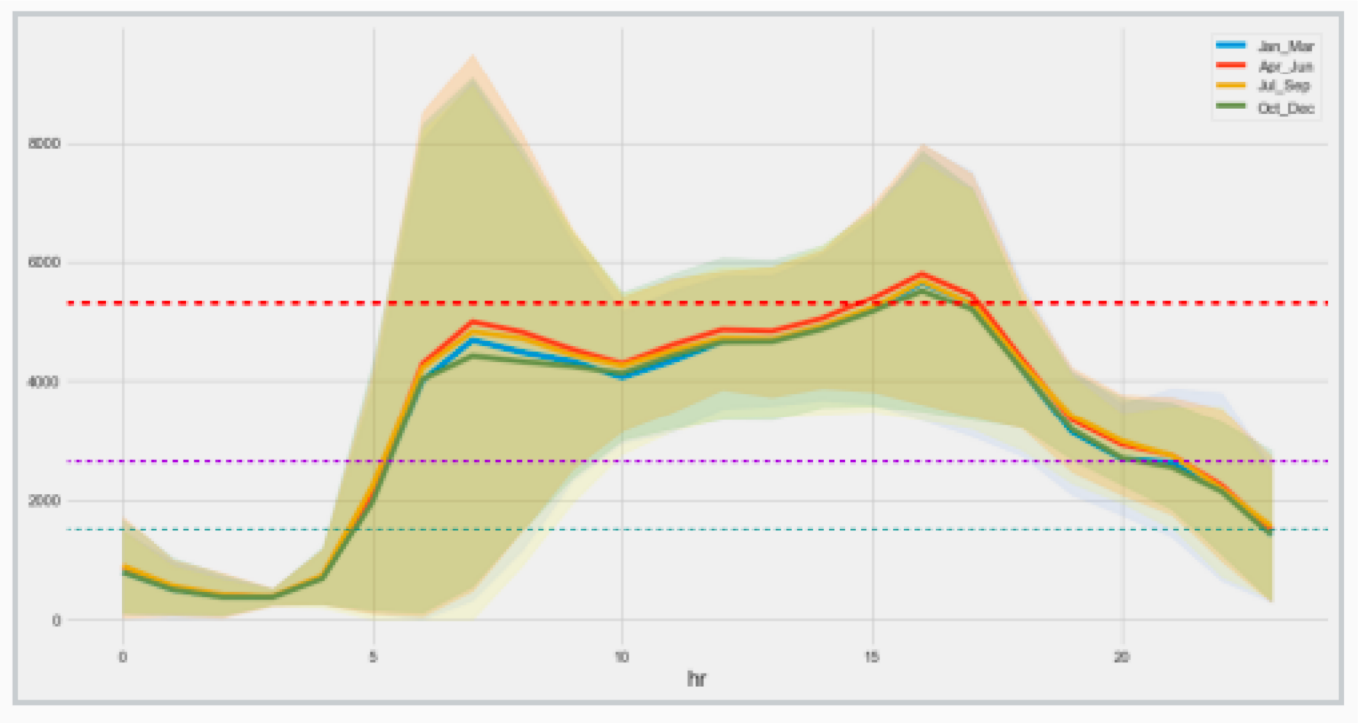
5. Plot Seasons Traffic volume



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6. Normalize the numerical data
7. What differentiates Time series from image or table data?
8. Visualize the feature importance using Explainable Boosting Machine (EBM)
9. Plot seasons and trends of the time series
10. Visualize how the decision was made using decision tree as surrogate only for 2 classes