

Traffic Intelligence: Advanced Traffic Volume Estimation with Machine Learning

MENTOR: SRI L.LAKSHMI NARAYANA

TEAM ID: LTVIP2025TMID40409

TEAM LEADER: VAIBOYINA DEVI



Roll Number: SBAP0040409

MAIL ID: deviyaiboina@gmail.com

MY TASKS:

TSK-338833:

Download the dataset

traffic volume.csv

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	A	B	C	D	E	F	G
	holiday	temp	rain	snow	weather	date	Time
1	None	288.28	0	0	Clouds	02-10-2012	9
2	None	289.36	0	0	Clouds	02-10-2012	10
3	None	289.58	0	0	Clouds	02-10-2012	11
4	None	290.13	0	0	Clouds	02-10-2012	12
5	None	291.14	0	0	Clouds	02-10-2012	13
6	None	291.72	0	0	Clear	02-10-2012	14
7	None	293.17	0	0	Clear	02-10-2012	15
8	None	293.86	0	0	Clear	02-10-2012	16
9	None	294.14	0	0	Clouds	02-10-2012	17
10	None	293.1	0	0	Clouds	02-10-2012	18
11	None	290.97	0	0	Clouds	02-10-2012	19
12	None	289.38	0	0	Clear	02-10-2012	20
13	None	288.61	0	0	Clear	02-10-2012	21
14	None	287.16	0	0	Clear	02-10-2012	22
15	None	285.45	0	0	Clear	02-10-2012	23
16	None	284.63	0	0	Clear	03-10-2012	0
17	None	283.47	0	0	Clear	03-10-2012	1
18	None	281.18	0	0	Clear	03-10-2012	2
19	None	281.09	0	0	Clear	03-10-2012	3
20	None	279.53	0	0	Clear	03-10-2012	4
21	None	278.62	0	0	Clear	03-10-2012	5
22	None	278.23	0	0	Clear	03-10-2012	6
23	None						

TSK-338834:

Import Necessary Libraries

```
[1]: import pandas as pd
import numpy as np
import sklearn as sk
from sklearn import linear_model
from sklearn import tree
from sklearn import ensemble
from sklearn import svm
import xgboost
```

```
[2]: !pip install seaborn
```

TSK-338835:

Importing the Dataset

```
Requirement already satisfied: six>=1.5 in
c:\users\dell\appdata\local\programs\python\python313\lib\site-packages (from
python-dateutil>=2.7->matplotlib!=3.6.1,>=3.4->seaborn) (1.17.0)
```

```
[3]: df = pd.read_csv('traffic volume - traffic volume.csv')
```

```
[4]: df.head()
```

```
[4]:   holiday    temp  rain  snow weather    date    Time  traffic_volume
0      NaN  288.28   0.0   0.0  Clouds  02-10-2012  9:00:00           5545
1      NaN  289.36   0.0   0.0  Clouds  02-10-2012  10:00:00           4516
2      NaN  289.58   0.0   0.0  Clouds  02-10-2012  11:00:00           4767
3      NaN  290.13   0.0   0.0  Clouds  02-10-2012  12:00:00           5026
4      NaN  291.14   0.0   0.0  Clouds  02-10-2012  13:00:00           4918
```

TSK-338845:

Build HTML Code



