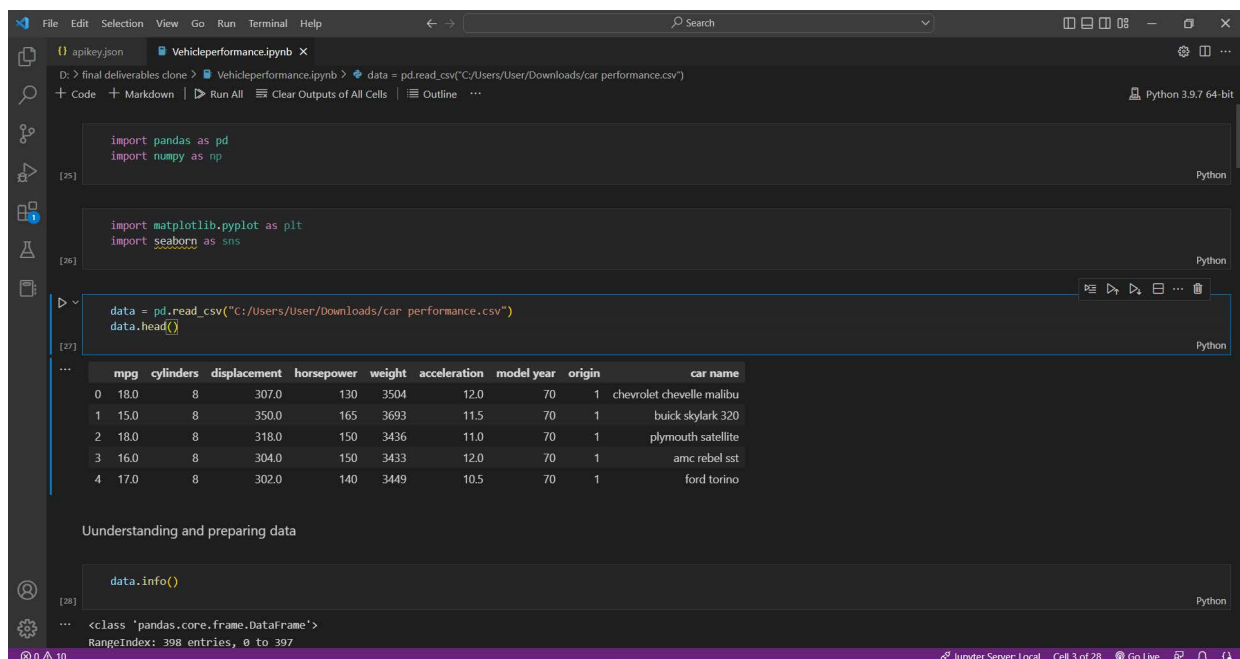


PROJECT DEVELOPMENT PHASE

DELIVERY OF SPRINT-1

DATE	29 OCTOBER 2022
TEAM ID	PNT2022TMID15686
PROJECT NAME	Machine Learning based Vehicle Performance Analyzer
MAXIMUM MARK	4 Marks

- Import library and load dataset in python



The screenshot shows a Jupyter Notebook interface with the following code cells:

```
[25] import pandas as pd
import numpy as np

[26] import matplotlib.pyplot as plt
import seaborn as sns

[27] data = pd.read_csv("C:/Users/User/Downloads/car performance.csv")
data.head()
```

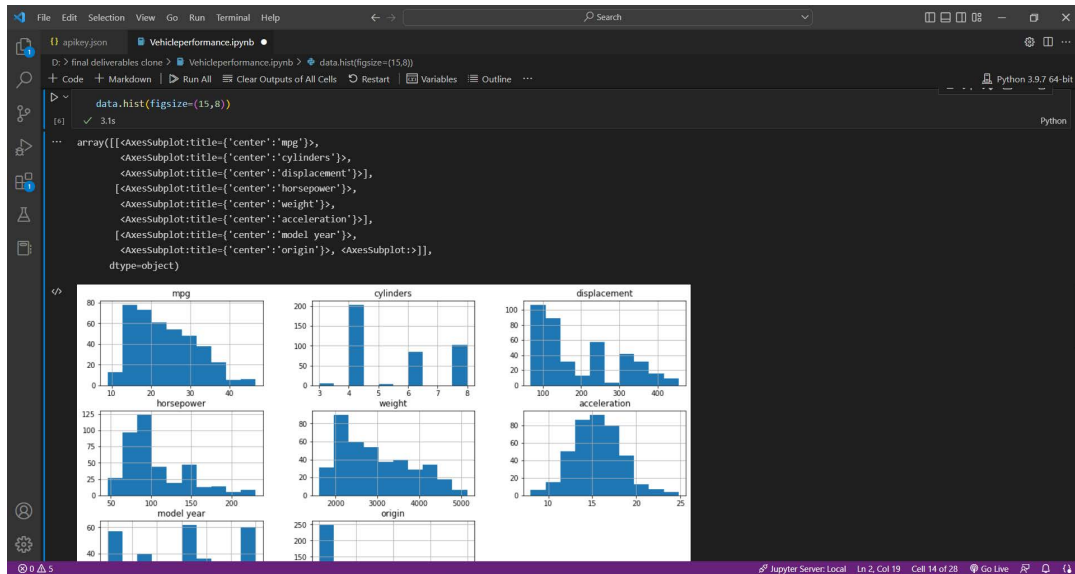
	mpg	cylinders	displacement	horsepower	weight	acceleration	model year	origin	car name
0	18.0	8	307.0	130	3504	12.0	70	1	chevrolet chevelle malibu
1	15.0	8	350.0	165	3693	11.5	70	1	buick skylark 320
2	18.0	8	318.0	150	3436	11.0	70	1	plymouth satellite
3	16.0	8	304.0	150	3433	12.0	70	1	amc rebel sst
4	17.0	8	302.0	140	3449	10.5	70	1	ford torino

Understanding and preparing data

```
[28] data.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 398 entries, 0 to 397
```

- **Understanding and Analyzing the dataset by Correlation.**



- **Clearing null values**

The screenshot shows a Jupyter Notebook interface with the following content:

File Edit Selection View Go Run Terminal Help

apikay.json Vehicleperformance.ipynb X

D: > final deliverables clone > Vehicleperformance.ipynb > data = pd.read_csv("C:/Users/User/Downloads/car performance.csv")

+ Code + Markdown | Run All Clear Outputs of All Cells Outline

Python 3.9.7 64-bit

Checking for missing values

```
data.isnull().sum()
```

[29]

Python

```
mpg      0
cylinders 0
displacement 0
horsepower 0
weight 0
acceleration 0
model year 0
origin 0
car name 0
dtype: int64
```

There are no missing values

Statistical Summary

```
data.describe()
```

[30]

Python

	mpg	cylinders	displacement	horsepower	weight	acceleration	model year	origin
count	398.000000	398.000000	398.000000	398.000000	398.000000	398.000000	398.000000	398.000000
mean	23.514573	5.454774	193.425879	104.165829	2970.424623	15.568090	76.010050	1.572864
std	7.815984	1.701004	104.269838	38.298676	846.841774	2.757689	3.697627	0.802055

0 10 Jupyter Server: Local Cell 3 of 28 Go Live