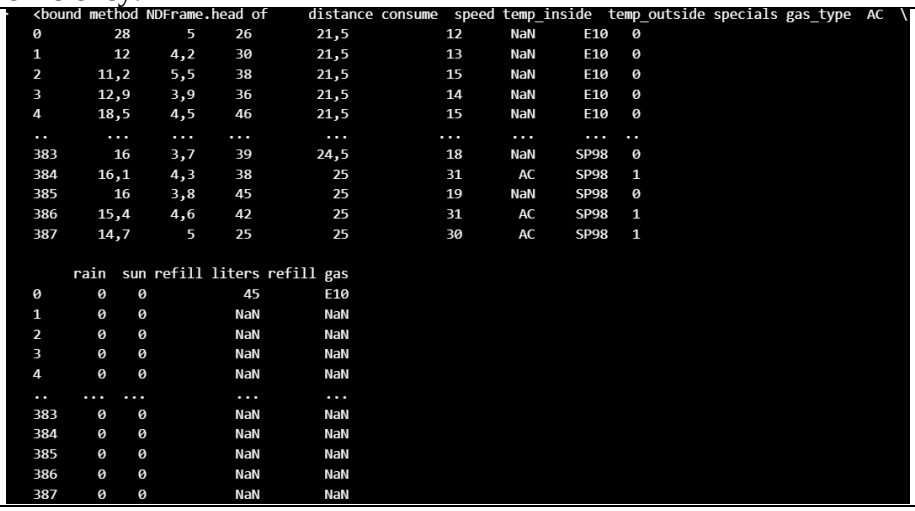
Data Collection and Preprocessing Phase

Date	15th July 2024
Team ID	739740
Project Title	Predictive Modeling For Fleet Fuel Management Using ML
Maximum Marks	6 Marks

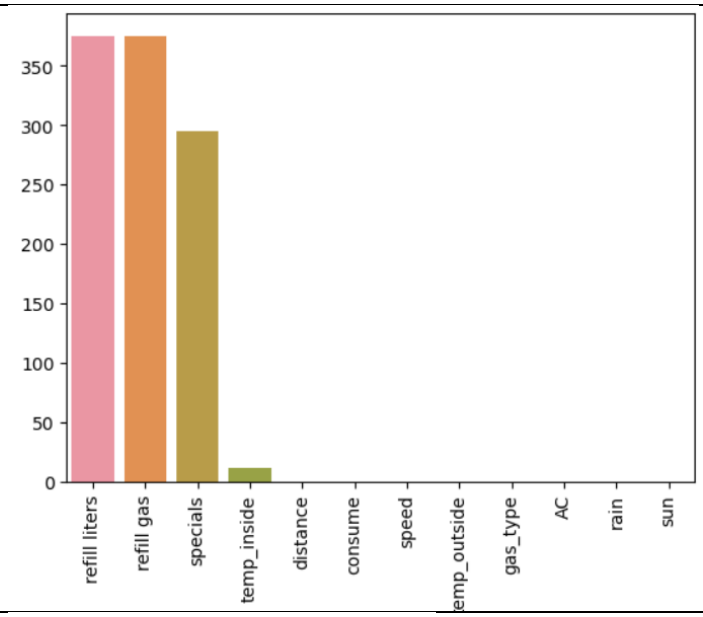
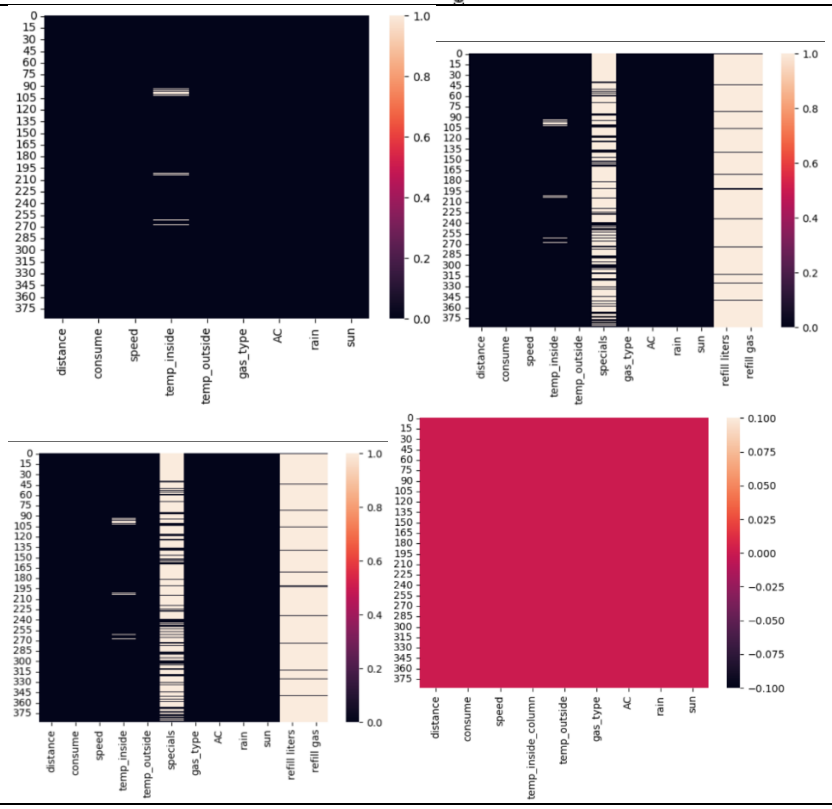
Data Exploration and Preprocessing Template

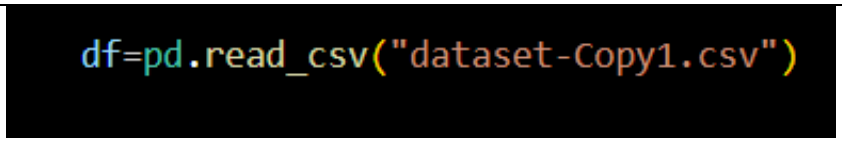
Perform exploratory data analysis to understand fuel consumption patterns and clean data for ML model input, handling missing values and outliers appropriately.

section	Description
Data Overview	analyzing multiple facets such as historical fuel usage, vehicle telematics, weather conditions, traffic patterns, and driver behavior to optimize fleet fuel efficiency.
Univariate Analysis	

```
  <bound method NDFrame.head of     distance consume  speed temp_inside  temp_outside specials gas_type  AC  \
0         28       5     26       21,5           12       NaN       E10   0
1         12     4,2     30       21,5           13       NaN       E10   0
2       11,2     5,5     38       21,5           15       NaN       E10   0
3       12,9     3,9     36       21,5           14       NaN       E10   0
4       18,5     4,5     46       21,5           15       NaN       E10   0
..       ...     ...    ...        ...          ...       ...       ...  ..
383       16     3,7     39       24,5           18       NaN      SP98   0
384     16,1     4,3     38         25           31        AC      SP98   1
385       16     3,8     45         25           19       NaN      SP98   0
386     15,4     4,6     42         25           31        AC      SP98   1
387     14,7       5     25         25           30        AC      SP98   1

     rain  sun refill liters refill gas
0       0    0            45        E10
1       0    0           NaN        NaN
2       0    0           NaN        NaN
3       0    0           NaN        NaN
4       0    0           NaN        NaN
..    ...  ...           ...        ...
383     0    0           NaN        NaN
384     0    0           NaN        NaN
385     0    0           NaN        NaN
386     0    0           NaN        NaN
387     0    0           NaN        NaN
```

Bivariate Analysis	
Multivariate Analysis	

Loading Data	
Handling Missing Data