

## Model Development Phase Template

Date	15 <sup>th</sup> July 2024
Team ID	739740
Project Title	Predictive Modeling For Fleet Fuel Management Using ML.
Maximum Marks	4 Marks

### Initial Model Training Code, Model Validation and Evaluation Report

The initial model training code will be showcased in the future through a screenshot.  
The model validation and evaluation report will include classification reports, accuracy, and confusion matrices for multiple models, presented through respective screenshots.

### Initial Model Training Code:

```
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression
l=LinearRegression()

# Assuming 'df' is your original pandas DataFrame
x = df.drop(['consume', 'gas_type'], axis=1)
x = x.replace(',', '.', regex=True) # Apply replace on the DataFrame

# Now you can proceed to convert 'x' to a NumPy array if needed
x_array = x.to_numpy()

y=df['consume']

x=x.values
y=y.values

x_array = x
```

## Model Validation and Evaluation Report:

Model	Classification Report	Accuracy	Confusion Matrix
Linear Regressor	<pre> l = LinearRegression() l.fit(x_train, y_train)  x_train.shape  (271, 7)  y_pred=l.predict(x_test)  print(l.coef_,l.intercept_)  [ 0.00523674 -0.02371772 -0.14711979 -0.03724498  0.41456804  0.61676684  -0.06407861] 9.38930814225712 </pre>	99%	-