Sprint – 4

TESTING –USING VARIOUS PARAMETERS

Team ID	PNT2022TMID13743
Project Name	Car Resale Value Prediction

Testing using various parameters :

Software testing is used to assess the quality of the product. Software testing can also provide an objective, independent view of the software to allow the business to appreciate and understand the risks of software implementation.

Conduct testing in a car resale value analysis and prediction using machine learning project include,

-Define the objectives of the project and the target audience for the predictions.

-Determine what type of data is available for the project, and whether it is enough to train a machine learning model.

-Design a testing strategy that will assess the accuracy of the predictions made by the machine learning model.

-Execute the testing strategy and analyze the results to identify any areas where the predictions were not accurate.

-Make improvements to the machine learning model based on the findings from the testing process.

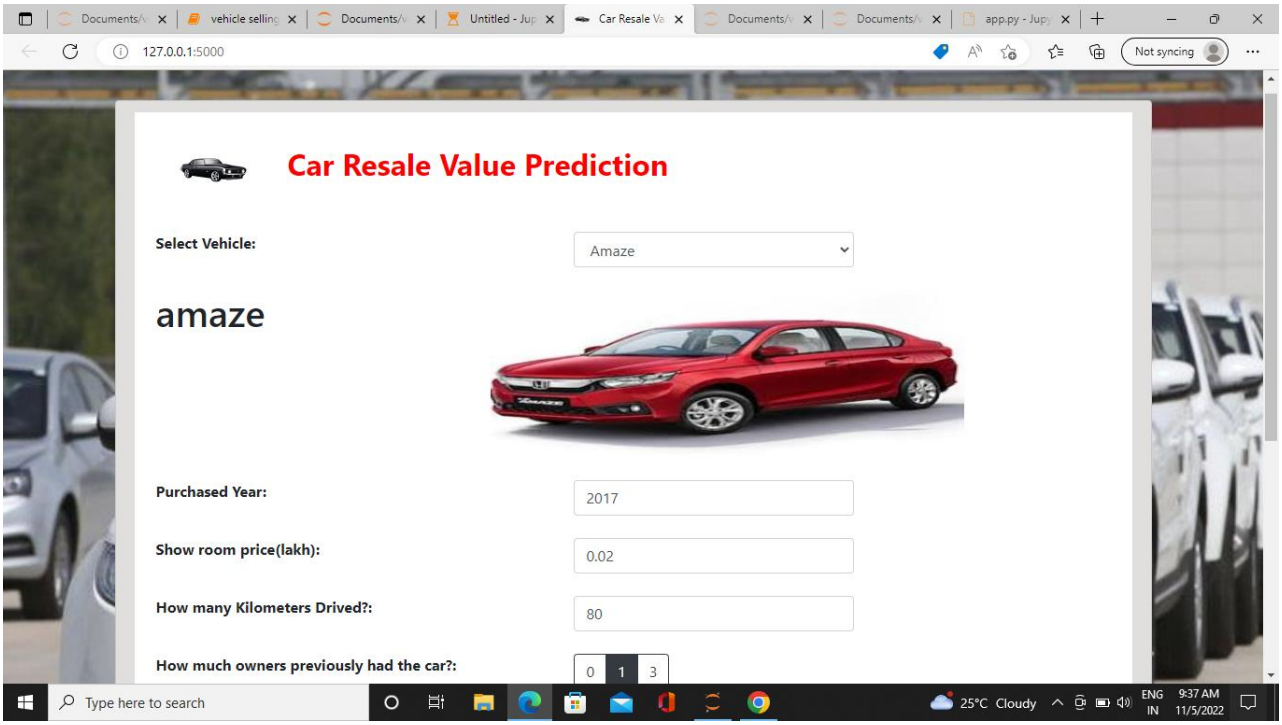
Code for testing using Regression model:

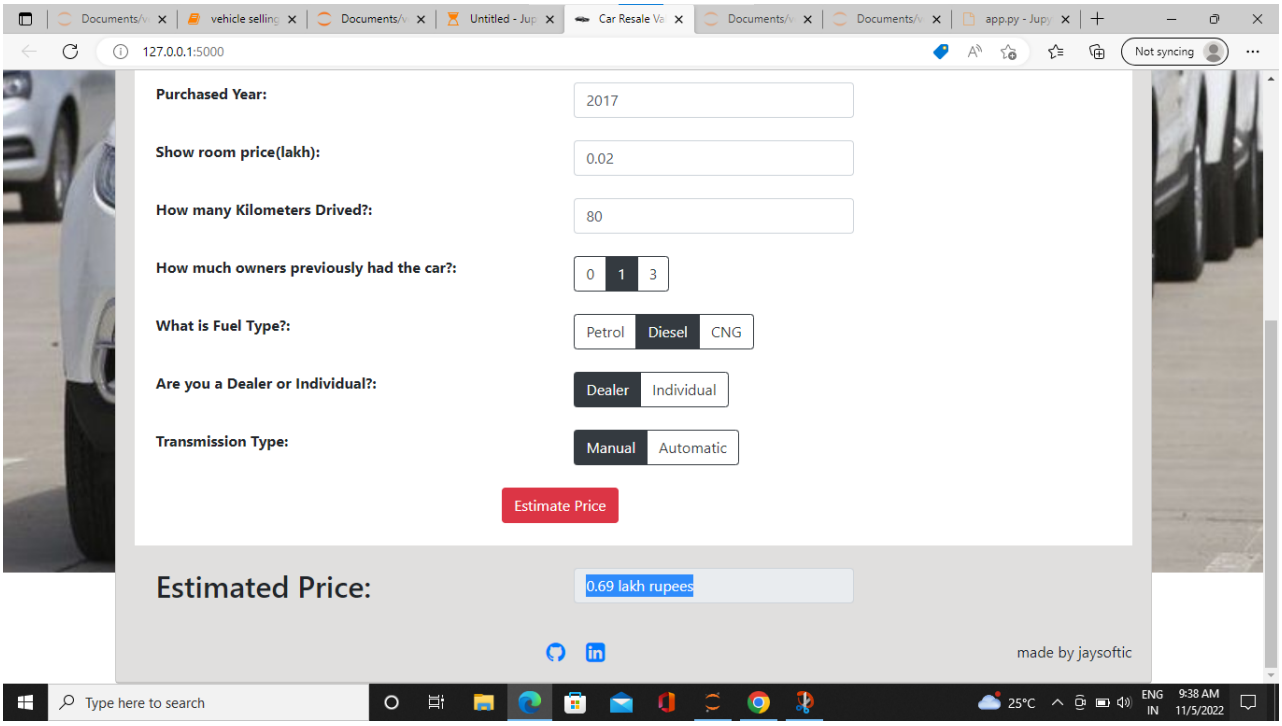
```
from sklearn.linear_model import LinearRegression
from sklearn.tree import DecisionTreeRegressor
from sklearn.ensemble import RandomForestRegressor
from sklearn.model_selection import RandomizedSearchCV

best_models = {}
scores = []
for model_name, values in algos.items():
    model_tunning = RandomizedSearchCV(values["model"], values["param"], n_iter=10, cv = 5,
n_jobs = -1)
    model_tunning.fit(X_train, y_train)

    best_models[model_name] = model_tunning
    scores.append({
        "Model": model_name,
        "Best Parameters": model_tunning.best_params_,
        "Best Score": model_tunning.best_score_
    })

pd.DataFrame(scores)
```

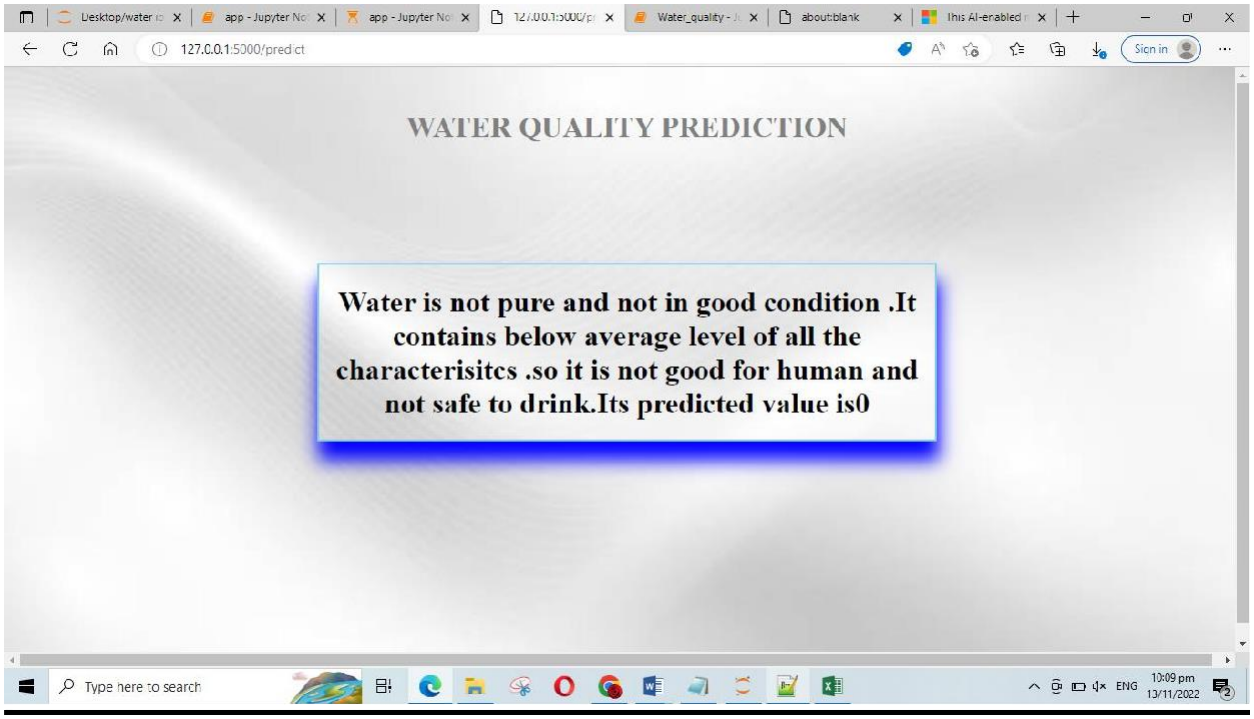
output prediction:

Best car resale value test cases:

It contains the best factors in car which is suitable for buying for various purposes.


127.0.0.1:5000
Not syncing
Car Resale Value Prediction
Select Vehicle:
Amaze
amaze
Purchased Year:
2017
Show room price(lakh):
0.02
How many Kilometers Drived?:
80
How much owners previously had the car?:
0
1
3
Type here to search
25°C Cloudy
ENG
IN
9:37 AM
11/5/2022


127.0.0.1:5000
Not syncing
Purchased Year:
2017
Show room price(lakh):
0.02
How many Kilometers Drived?:
80
How much owners previously had the car?:
0
1
3
What is Fuel Type?:
Petrol
Diesel
CNG
Are you a Dealer or Individual?:
Dealer
Individual
Transmission Type:
Manual
Automatic
Estimate Price
Estimated Price:
0.69 lakh rupees
made by jaysoftic
Type here to search
25°C
ENG
IN
9:38 AM
11/5/2022


127.0.0.1:5000/predict
Sign in
WATER QUALITY PREDICTION
Water is not pure and not in good condition .It contains below average level of all the characterisitcs .so it is not good for human and not safe to drink.Its predicted value is0
Type here to search
ENG
10:09 pm
13/11/2022