CODING & SOLUTIONING

Application

This is the final code used in the designing of the app or website for the resale prediction and it is done with the regression models.

```
from flask import Flask,render_template,request,redirect

from flask_cors import CORS,cross_origin
import pickle
import pandas as pd
import numpy as np

app=Flask(__name__)
cors=CORS(app)
model=pickle.load(open('LinearRegressionModel.pkl','rb'))
car=pd.read_csv('Cleaned_Car_data.csv')

@app.route('/',methods=['GET','POST'])
def index():
    companies=sorted(car['company'].unique())
    car_models=sorted(car['name'].unique())
    year=sorted(car['year'].unique(),reverse=True)
    fuel_type=car['fuel_type'].unique()

    companies.insert(0,'Select Company')
    return render_template('index.html',companies=companies,
car_models=car_models, years=year,fuel_types=fuel_type)


@app.route('/predict',methods=['POST'])
@cross_origin()
def predict():

    company=request.form.get('company')
```

```
    car_model=request.form.get('car_models')
    year=request.form.get('year')
    fuel_type=request.form.get('fuel_type')
    driven=request.form.get('kilo_driven')

    prediction=model.predict(pd.DataFrame(columns=['name', 'company', 'year',
'kms_driven', 'fuel_type'],

data=np.array([car_model,company,year,driven,fuel_type]).reshape(1, 5)))
    print(prediction)

    return str(np.round(prediction[0],2))



if __name__=='__main__':
    app.run()
```

Feature 1:

Car Details

This helps in collecting the details from the user like what is the model of the car, fuel type, etc.

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <title>Car Resale Value Predicting Application</title>
    <link rel="icon" type="image/x-icon" href="../static/Images/favicon.ico">
    <link rel="stylesheet" href="../static/css/style.css">
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/4.7.0/css/font-awesome.min.css">
  </head>
  <body>
    <section class="header">
      <nav>
```

```
      <a href="/"><img src="../static/Images/sang.png" width="100"
height="100"></a>

     </nav>
      <div class="text-box">
        <h1>Car resale value Predictor</h1>
        <p>Best system to predict the amount of resale value based on the
parameters provided by the user .</p>
        <a href="./predict_page" class="visit-btn ">Check price</a>
      </div>
   </section>

  </body>
</html>
```

Styles

```
<!DOCTYPE html>

<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <link rel="stylesheet" href="../static/css/predict.css">
   <title>Car Resale Value Predicting Application</title>
   <link rel="icon" type="image/x-icon" href="../static/Images/favicon.ico">
</head>
<body>
      <section class="header">
     <nav>
      <a href="/"><img src="../static/Images/sang.png" width="100"
height="100"></a>
     </nav>
      <div class="text-box">
        <h1>The Predicted Car Resale Value is </h1>
             <h1>{{predict}}</h1>
      </div>
   </section>
```

```
</body>
</html>
```

Feature 2 :

Prediction Purpose

This helps in predicting the final output based on the inputs given by the user.

This also helps in predicting accurate price for the car.

```
<!DOCTYPE html>

<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <link rel="stylesheet" href="../static/css/predict.css">
   <title>Car Resale Value Predicting Application</title>
   <link rel="icon" type="image/x-icon" href="../static/Images/favicon.ico">
</head>
<body>
       <section class="header">
     <nav>
       <a href="/"><img src="../static/Images/sang.png" width="100"
height="100"></a>
     </nav>
       <div class="text-box">
         <h1>The Predicted Car Resale Value is </h1>
               <h1>{{predict}}</h1>
       </div>
   </section>


</body>
</html>
```