PROJECT DEVELOPMENT PHASE

(DELIVERY OF SPRINT-3)

Date	**19th November 2022**
Team ID	**PNT2022TMID00068**
Project Name	**Car Resale Value prediction**
Maximum marks	**4 Marks**

- **Flask Framework**:

```python
# Import Libraries

import pandas as pd
import numpy as np
from flask import Flask, render_template, Response, request
import pickle
from sklearn.preprocessing import LabelEncoder

app = Flask(__name__)#initiate flask app

def load_model(file='model.sav'):#load the saved model
    return pickle.load(open(file, 'rb'))

@app.route('/')
def index():#main page
    return render_template('car.html')

@app.route('/predict_page')
def predict_page():#predicting page
    return render_template('value.html')

@app.route('/predict', methods=['GET','POST'])
def predict():
    reg_year = int(request.args.get('regyear'))
    powerps = float(request.args.get('powerps'))
    kms=  float(request.args.get('kms'))
    reg_month = int(request.args.get('regmonth'))

    gearbox = request.args.get('geartype')
    damage = request.args.get('damage')
    model = request.args.get('model')
    brand = request.args.get('brand')
    fuel_type = request.args.get('fuelType')
    veh_type = request.args.get('vehicletype')
```

```python
    new_row = {'yearOfReg':reg_year, 'powerPS':powerps, 'kilometer':kms,
                'monthOfRegistration':reg_month, 'gearbox':gearbox,
                'notRepairedDamage':damage,
                'model':model, 'brand':brand, 'fuelType':fuel_type,
                'vehicletype':veh_type}

    print(new_row)

    new_df = pd.DataFrame(columns=['vehicletype','yearOfReg','gearbox',
        'powerPS','model','kilometer','monthOfRegistration','fuelType',
        'brand','notRepairedDamage'])
    new_df = new_df.append(new_row, ignore_index=True)
    labels =
['gearbox','notRepairedDamage','model','brand','fuelType','vehicletype']
    mapper = {}

    for i in labels:
        mapper[i] = LabelEncoder()
        mapper[i].classes = np.load(str('classes'+i+'.npy'),
allow_pickle=True)
        transform = mapper[i].fit_transform(new_df[i])
        new_df.loc[:,i+'_labels'] = pd.Series(transform, index=new_df.index)
    labeled = new_df[['yearOfReg','powerPS','kilometer','monthOfRegistration']
+ [x+'_labels' for x in labels]]

    X = labeled.values.tolist()
    print('\n\n', X)
    predict = reg_model.predict(X)


    #predict = predictions['predictions'][0]['values'][0][0]
    print("Final prediction :",predict)

    return render_template('predict.html',predict=predict)

if __name__=='__main__':
    reg_model = load_model()#load the saved model
    app.run(debug=True)
```

HTML Design Code:

```html
<!DOCTYPE html>
<nav lang="en" dir="ltr">
  <head>
    <style>
      :root {

  --typewriterSpeed: 6s;
}

body
{
    margin:0;


    background-color:peachpuff;
}
h1
{
    position:relative;
    font-size:4rem;
    position:relative;


}
a{
  text-decoration: none;
}
.bg{

  margin:50px 170px;


}
button{
  margin-left: 650px;
  background-color: lightgreen;
}
h1::before,
h1::after
{
    content:"";
    position:absolute;
    top:0;
    bottom:0;
    left:0;
    right:0;
}


h1::before
{
    background:peachpuff;
    animation:typewritter 6s steps(28) 2s forwards;
}
```

```css
h1::after
{
    width:0.125em;
    background:black;
    animation:
    typewritter 6s steps(28) 2s forwards,
    blink 730ms steps(28) infinite,
    blinks 12s steps(28) forwards;
}
@keyframes blinks
{
    to{
        background-color:peachpuff;
    }
}
@keyframes typewritter
{
    to{left:100%;}
}

@keyframes blink
{
    to{
    background-color:transparent;
    }
}


.subtitle
{
  display:grid;
  place-content:center;
  text-align:center;
    color:hsl(0 0% 0%/0.7);
    font-size:2rem;
    font-weight:400;
    opacity:0;
    transform: translateY(3rem);
    animation: fade 2s ease 8s forwards;

}



@keyframes fade {
  to {
    opacity: 1;
    transform: translateY(0);
  }
}


    div {text-align: center;}
 </style>
```

```html
    <meta charset="utf-8">
    <title>Car resale value </title>
    <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">
      <div class="text-box">
        <h1 class="bg">CAR RESALE VALUE PREDICTION</h1>
        <p class="subtitle">welcome to our webpage</a></p>
        <br>
        <button class="subtitle "><a href="./predict_page"  style="font-
size:30px" >Check price</a></button>
        <a href='https://postimg.cc/kB3n3Ss8' target='_blank'><img
src='https://i.postimg.cc/kB3n3Ss8/drift2.jpg'
border='0'  style="width:600px"alt='drift2'/></a>


      </div>
    </section>
  </nav>
    </body>
    </body>
  </body>
</html>
```

Application Webpage:

Accurate Resale Value of Your Car

Registration year :   2011

Registration Month :   3

Power of car in PS: 190

Kilometers that car have   70000
driven :

Gear type :   ● Manual ○ Automatic ○ Not
                            declared

Your car is repaired or   ○ Yes ● No ○ Not declared
damaged :

Model Type :   Navara

Power of car in PS: 190

Kilometers that car have   70000
driven :

Gear type :   ● Manual ○ Automatic ○ Not
                            declared

Your car is repaired or   ○ Yes ● No ○ Not declared
damaged :

Model Type :   Navara

Brand :   Nissan

Fuel Type :   Diesel

Vehicle type: SUV

Submit

The Predicted Car Resale Value is

₹[16984.07610861]