

## Build an HTML page:

### 1) Form.html

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
<link rel="stylesheet" href="../static/css/value.css">
<title>Car resale value</title>
</head>
<body style="background-color:Lightblue;">
  <section class="form">
    <form action="/predict" method="GET">
      <table border="0" align="center">
        <tbody>
          <tr>
            <td colspan="2"><h1>Get the Accurate Resale Value of Your Car</h1>
          </td>
        </tr>
        <tr>
          <td><label for="year" padding:10px>Registration year : </label></td>
          <td><input id="year" maxlength="50" name="regyear" type="text" />
          <br>
          <br>
        </td>
        </tr>
        <tr>
          <td><label for="month">Registration Month : </label></td>
          <td><input id="month" maxlength="50" name="regmonth" type="text" />
          <br>
          <br>
        </td>
        </tr>
        <tr>
          <td><label for="power">Power of car in PS: </label></td>
          <td><input id="power" maxlength="50" name="powerps" type="text" />
          <br>
          <br>
        </td>
        </tr>
        <tr>
          <td><label for="kilometer">Kilometers that car have driven : </label></td>
          <td><input id="kilometer" maxlength="50" name="kms" type="text" />
          <br>
          <br>
        </td>
        </tr>
        <tr>
          <td><label for="geartype">Gear type : </label></td>
          <td><input type="radio" name="geartype" value="manual"/> Manual
          <input type="radio" name="geartype" value="automatic"/> Automatic
          <input type="radio" name="geartype" value="not-declared"/> Not declared
          <br>
          <br>
        </td>
        </tr>
        <tr>
          <td colspan="2"><label for="damage">Your car is repaired or damaged : </label></td>
        </tr>
      </tbody>
    </table>
  </form>
</section>
</body>
</html>
```

```

<td><input type="radio" name="damage" value="yes"/> Yes
<input type="radio" name="damage" value="no"/> No
<input type="radio" name="damage" value="not-declared"/> Not declared
<br>
<br>
</td>
</tr><tr>
<td><label for="model">Model Type : </label></td>
<td>
<select name="model" id="model">
<option value="" disabled selected hidden>Choose Model Name...</option>
<option value="golf">Golf </option>
<option value="grand">Grand </option>
<option value="fabia">Fabia </option>
<option value="3er">3er </option>
<option value="2_reihe">2 Reihe </option>
<option value="andere">Andere </option>
<option value="c_max">C Max </option>
<option value="3_reihe">3 Reihe </option>
<option value="passat">Passat </option>
<option value="navara">Navara </option>
<option value="ka">Ka </option>
<option value="polo">Polo </option>
<option value="twingo">Twingo </option>
<option value="a_klasse">A klasse </option>
<option value="scirocco">Scirocco </option>
<option value="5er">5er </option>
<option value="meriva">Meriva </option>
<option value="arosa">Arosa </option>
<option value="c4">C4 </option>
<option value="civic">Civic </option>
<option value="transporter">Transporter </option>
<option value="punto">Punto </option>
<option value="e_klasse">E Klasse </option>
<option value="clio">Clio </option>
<option value="kadett">Kadett </option>
<option value="kangoo">Kangoo </option>
<option value="corsa">Corsa </option>
<option value="one">One </option>
<option value="fortwo">Fortwo </option>
<option value="1er">1er </option>
<option value="b_klasse">B Klasse </option>
<option value="signum">Signum </option>
<option value="astra">Astra </option>
<option value="a8">A8 </option>
<option value="jetta">Jetta </option>
<option value="fiesta">Fiesta </option>
<option value="c_klasse">C Klasse </option>
<option value="micra">Micra </option>
<option value="vito">Vito </option>
<option value="sprinter">Sprinter </option>

```

<option value="156">156 </option>  
<option value="escort">Escort </option>  
<option value="forester">Forester </option>  
<option value="xc\_reihe">Xc Reihe </option>  
<option value="scenic">Scenic </option>  
<option value="a4">A4 </option>  
<option value="a1">A1 </option>  
<option value="insignia">Insignia </option>  
<option value="combo">Combo </option>  
<option value="focus">Focus </option>  
<option value="tt">Tt </option>  
<option value="a6">A6 </option>  
<option value="jazz">Jazz </option>  
<option value="omega">Omega </option>  
<option value="slk">Slk </option>  
<option value="7er">7er </option>  
<option value="80">80 </option>  
<option value="147">147 </option>  
<option value="glk">Glk </option>  
<option value="100">100 </option>  
<option value="z\_reihe">Z Reihe </option>  
<option value="sportage">Sportage </option>  
<option value="sorento">Sorento </option>  
<option value="v40">V40 </option>  
<option value="5er">5er </option>  
<option value="ibiza">Ibiza </option>  
<option value="3er">3er </option>  
<option value="mustang">Mustang </option>  
<option value="eos">Eos </option>  
<option value="touran">Touran </option>  
<option value="getz">Getz </option>  
<option value="a3">A3 </option>  
<option value="almera">Almera </option>  
<option value="megane">Megane </option>  
<option value="7er">7er </option>  
<option value="1er">1er </option>  
<option value="lupo">Lupo </option>  
<option value="r19">R19 </option>  
<option value="zafira">Zafira </option>  
<option value="caddy">Caddy </option>  
<option value="2\_reihe">2 Reihe </option>  
<option value="mondeo">Mondeo </option>  
<option value="cordoba">Cordoba </option>  
<option value="colt">Colt </option>  
<option value="impreza">Impreza </option>  
<option value="vectra">Vectra </option>  
<option value="berlingo">Berlingo </option>  
<option value="80">80 </option>  
<option value="m\_klasse">M Klasse </option>  
<option value="tiguan">Tiguan </option>  
<option value="i\_reihe">I Reihe </option>

<option value="espace">Espace </option>  
<option value="sharan">Sharan </option>  
<option value="6\_reihe">6 Reihe </option>  
<option value="panda">Panda </option>  
<option value="up">Up </option>  
<option value="seicento">Seicento </option>  
<option value="ceed">Ceed </option>  
<option value="5\_reihe">5 Reihe </option>  
<option value="yeti">Yeti </option>  
<option value="octavia">Octavia </option>  
<option value="mii">Mii </option>  
<option value="rx\_reihe">Rx Reihe </option>  
<option value="6er">6er </option>  
<option value="modus">Modus </option>  
<option value="fox">Fox </option>  
<option value="matiz">Matiz </option>  
<option value="beetle">Beetle </option>  
<option value="c1">C1 </option>  
<option value="rio">Rio </option>  
<option value="touareg">Touareg </option>  
<option value="logan">Logan </option>  
<option value="spider">Spider </option>  
<option value="cuore">Cuore </option>  
<option value="s\_max">S Max </option>  
<option value="a2">A2 </option>  
<option value="x\_reihe">X Reihe </option>  
<option value="a5">A5 </option>  
<option value="galaxy">Galaxy </option>  
<option value="c3">C3 </option>  
<option value="viano">Viano </option>  
<option value="s\_klasse">S Klasse </option>  
<option value="1\_reihe">1 Reihe </option>  
<option value="avensis">Avensis </option>  
<option value="sl">Sl </option>  
<option value="roomster">Roomster </option>  
<option value="q5">Q5 </option>  
<option value="kaefer">Kaefer </option>  
<option value="santa">Santa </option>  
<option value="cooper">Cooper </option>  
<option value="leon">Leon </option>  
<option value="4\_reihe">4 Reihe </option>  
<option value="500">500 </option>  
<option value="laguna">Laguna </option>  
<option value="ptcruiser">Ptcruiser </option>  
<option value="clk">Clk </option>  
<option value="primera">Primera </option>  
<option value="exeo">Exeo </option>  
<option value="159">159 </option>  
<option value="transit">Transit </option>  
<option value="juke">Juke </option>  
<option value="qashqai">Qashqai </option>

<option value="carisma">Carisma </option>  
<option value="accord">Accord </option>  
<option value="corolla">Corolla </option>  
<option value="lanos">Lanos </option>  
<option value="phaeton">Phaeton </option>  
<option value="boxster">Boxster </option>  
<option value="verso">Verso </option>  
<option value="swift">Swift </option>  
<option value="rav">Rav </option>  
<option value="kuga">Kuga </option>  
<option value="picanto">Picanto </option>  
<option value="kalos">Kalos </option>  
<option value="superb">Superb </option>  
<option value="stilo">Stilo </option>  
<option value="alhambra">Alhambra </option>  
<option value="911">911 </option>  
<option value="mx\_reihe">Mx Reihe </option>  
<option value="m\_reihe">M Reihe </option>  
<option value="roadster">Roadster </option>  
<option value="ypsilon">Ypsilon </option>  
<option value="cayenne">Cayenne </option>  
<option value="galant">Galant </option>  
<option value="justy">Justy </option>  
<option value="90">90 </option>  
<option value="sirion">Sirion </option>  
<option value="crossfire">Crossfire </option>  
<option value="6\_reihe">6 Reihe </option>  
<option value="agila">Agila </option>  
<option value="duster">Duster </option>  
<option value="cr\_reihe">Cr Reihe </option>  
<option value="v50">V50 </option>  
<option value="discovery">Discovery </option>  
<option value="c\_reihe">C Reihe </option>  
<option value="v\_klasse">V Klasse </option>  
<option value="yaris">Yaris </option>  
<option value="c5">C5 </option>  
<option value="aygo">Aygo </option>  
<option value="cc">Cc </option>  
<option value="carnival">Carnival </option>  
<option value="fusion">Fusion </option>  
<option value="bora">Bora </option>  
<option value="forfour">Forfour </option>  
<option value="100">100 </option>  
<option value="cl">Cl </option>  
<option value="tigra">Tigra </option>  
<option value="156">156 </option>  
<option value="300c">300c </option>  
<option value="100">100 </option>  
<option value="147">147 </option>  
<option value="q3">Q3 </option>  
<option value="spark">Spark </option>

<option value="v70">V70 </option>  
<option value="x\_type">X Type </option>  
<option value="5\_reihe">5 Reihe </option>  
<option value="ducato">Ducato </option>  
<option value="s\_type">S Type </option>  
<option value="x\_trail">X Trail </option>  
<option value="toledo">Toledo </option>  
<option value="altea">Altea </option>  
<option value="7er">7er </option>  
<option value="voyager">Voyager </option>  
<option value="calibra">Calibra </option>  
<option value="bravo">Bravo </option>  
<option value="range\_rover">Range Rover </option>  
<option value="antara">Antara </option>  
<option value="tucson">Tucson </option>  
<option value="q7">Q7 </option>  
<option value="citigo">Citigo </option>  
<option value="jimny">Jimny </option>  
<option value="cx\_reihe">Cx Reihe </option>  
<option value="wrangler">Wrangler </option>  
<option value="lybra">Lybra </option>  
<option value="range\_rover\_sport">Range Rover Sport </option>  
<option value="lancer">Lancer </option>  
<option value="159">159 </option>  
<option value="freelander">Freelander </option>  
<option value="captiva">Captiva </option>  
<option value="c2">C2 </option>  
<option value="500">500 </option>  
<option value="range\_rover\_evoque">Range Rover Evoque </option>  
<option value="sander0">Sander0 </option>  
<option value="note">Note </option>  
<option value="900">900 </option>  
<option value="147">147 </option>  
<option value="defender">Defender </option>  
<option value="cherokee">Cherokee </option>  
<option value="clubman">Clubman </option>  
<option value="samara">Samara </option>  
<option value="2\_reihe">2 Reihe </option>  
<option value="1er">1er </option>  
<option value="3er">3er </option>  
<option value="601">601 </option>  
<option value="3\_reihe">3 Reihe </option>  
<option value="4\_reihe">4 Reihe </option>  
<option value="5er">5er </option>  
<option value="6\_reihe">6 Reihe </option>  
<option value="legacy">Legacy </option>  
<option value="pajero">Pajero </option>  
<option value="auris">Auris </option>  
<option value="niva">Niva </option>  
<option value="5\_reihe">5 Reihe </option>  
<option value="s60">S60 </option>

```

<option value="nubira">Nubira </option>
<option value="vivaro">Vivaro </option>
<option value="g_klasse">G Klasse </option>
<option value="lodgy">Lodgy </option>
<option value="850">850 </option>
<option value="serie_2">Serie 2 </option>
<option value="6er">6er </option>
<option value="charade">Charade </option>
<option value="croma">Croma </option>
<option value="outlander">Outlander </option>
<option value="gl">Gl </option>
<option value="doblo">Doblo </option>
<option value="musa">Musa </option>
<option value="amarok">Amarok </option>
<option value="156">156 </option>
<option value="move">Move </option>
<option value="9000">9000 </option>
<option value="v60">V60 </option>
<option value="145">145 </option>
<option value="aveo">Aveo </option>
<option value="200">200 </option>
<option value="300c">300c </option>
<option value="b_max">B Max </option>
<option value="delta">Delta </option>
<option value="terios">Terios </option>
<option value="rangerover">RangeRover </option>
<option value="90">90 </option>
<option value="materia">Materia </option>
<option value="kalina">Kalina </option>
<option value="elefantino">Elefantino </option>
<option value="i3">I3 </option>
<option value="kappa">Kappa </option>
<option value="serie_3">Serie 3 </option>
<option value="48429">48429 </option>
<option value="serie_1">Serie 1 </option>
<option value="discovery_sport">Discovery Sport </option></select>
<br>
<br>
</td>
</tr><tr>
<td><label for="brand">Brand :</label></td>
<td>
<select name="brand" id="brand">
<option value="" disabled selected hidden>Choose Brand Name...</option>
<option value="volkswagen">Volkswagen </option>
<option value="audi">Audi </option>
<option value="jeep">Jeep </option>
<option value="skoda">Skoda </option>
<option value="bmw">Bmw </option>
<option value="peugeot">Peugeot </option>
<option value="ford">Ford </option>

```

```

<option value="mazda">Mazda </option>
<option value="nissan">Nissan </option>
<option value="renault">Renault </option>
<option value="mercedes_benz">Mercedes Benz </option>
<option value="opel">Opel </option>
<option value="seat">Seat </option>
<option value="citroen">Citroen </option>
<option value="honda">Honda </option>
<option value="fiat">Fiat </option>
<option value="mini">Mini </option>
<option value="smart">Smart </option>
<option value="hyundai">Hyundai </option>
<option value="sonstige_autos">Sonstige Autos </option>
<option value="alfa_romeo">Alfa Romeo </option>
<option value="subaru">Subaru </option>
<option value="volvo">Volvo </option>
<option value="mitsubishi">Mitsubishi </option>
<option value="kia">Kia </option>
<option value="suzuki">Suzuki </option>
<option value="lancia">Lancia </option>
<option value="porsche">Porsche </option>
<option value="toyota">Toyota </option>
<option value="chevrolet">Chevrolet </option>
<option value="dacia">Dacia </option>
<option value="daihatsu">Daihatsu </option>
<option value="trabant">Trabant </option>
<option value="saab">Saab </option>
<option value="chrysler">Chrysler </option>
<option value="jaguar">Jaguar </option>
<option value="daewoo">Daewoo </option>
<option value="rover">Rover </option>
<option value="land_rover">Land Rover </option>
<option value="lada">Lada </option>
</select>
<br>
<br>
</td>
</tr><tr>
<td><label for="fuelType">Fuel Type :</label></td>
<td>
<select name="fuelType" id="brand">
<option value="" disabled selected hidden>Choose Fuel Type...</option>
<option value="petrol"> Petrol </option>
<option value="diesel"> Diesel </option>
<option value="not-declared"> Not Declared </option>
<option value="lpg">LPG </option>
<option value="cng">CNG </option>
<option value="hybrid">Hybrid </option>
<option value="others">Others </option>
<option value="electric">Electric </option>
</select>

```



```

        <br>
        <br>
    </td>
</tr><tr>
<td><label for="vehicletype">Vehicle type:</label></td>
<td>
<select name="vehicletype" id="vehicle" >
<option value="" disabled selected hidden>Choose Vehicle Type...</option>
<option value="coupe">Coupe </option>
<option value="suv">SUV </option>
<option value="kleinwagen">Kleinwagen </option>
<option value="limousine">Limousine </option>
<option value="cabrio">Cabrio </option>
<option value="bus">Bus </option>
<option value="kombi">Kombi </option>
<option value="andere">Andere </option>
<option value="volkswagen">Volkswagen </option>
</select>
<br>
<br>
</td>
</tr>
</tbody>
</table><center>
<input name="Submit" type="Submit" value="Submit" id="button"/></center>
</form>
</section>
</body>
</html>

```

## 2) form.css

```

.header{
width: 100%;
text-align: center;
padding-top: 20px;
font-size:20px;
font-family :'Franklin Gothic Medium';
background-color:#43FFB6;
border:0%;
top:0px;
bottom:0px;
right:0px;
left:0px;
overflow-y:auto;
}
body{
margin: 0;
font-family :'Franklin Gothic Medium';
}
.form{

```

```

background-image: linear-gradient(rgba(25,30,30,0.7),rgba(25,30,30,0.7)),url(../Images/car2.jpg);
background-position: center;
background-size: cover;
position: relative;
text-align: center;
padding:20px;
display: flex;
flex-direction: column;
align-items: center;
font-size:22px;
}
input[type=text] {
width: 100%;
padding: 12px 20px;
margin: 8px 0;
display: inline-block;
border: 1px solid #ccc;
border-radius: 4px;
box-sizing: border-box;
}
select {
width: 100%;
padding: 16px 20px;
border: none;
border-radius: 4px;
background-color: #f1f1f1;
}
input[type=submit] {
font-family :'Franklin Gothic Medium';
font-weight: 700;
width: 40%;
background-color: #4CAF50;
color: black;
font-size: 20px;
padding: 20px 20px;
margin: 8px 0;
border: none;
border-radius: 4px;
cursor: pointer;
}
input[type=submit]:hover {
background-color: #37853b;
}
*{
color:black;
}

```

### 3) index.html

```
<!DOCTYPE html>
```

```

<nav lang="en" dir="ltr">
  <head>
    <style>
      body
    { background-color:#D3D3D3;
      }

      div {text-align: center;}
    </style>
    <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 style="font-size: 40px;color: purple">Car resale value Predictor</h1><br>
        <p style="font-size: 25px"> Welcome! To predict your used car price click the below button!</p>
        <br>
        <a href="/predict_page" class="visit-btn " style="font-size:30px">Check price</a>
        <br>
        

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

```

#### 4) index.css

```

*{
  margin: 0;
  padding: 0;
}

body{
  font-family :'Franklin Gothic Medium';
  margin: 0;
}

.header{

```

```

min-height: 100vh;
width: 100%;
background-image: linear-gradient(rgba(25,30,30,0.7),rgba(25,30,30,0.7)),url(../Images/car1.jpg);
background-position: center;
background-size: cover;
position :absolute;
}
.text-box{
text-align: center;
position: relative;
color: #FFE4C4;
top:50%;
}
.text-box h1{
margin-top: 50px;
font-size: 55px;
}
.text-box p{
margin: 10px 0 40px;
font-size: 15px;
}

.text-box a.visit-btn{
text-align: center;
padding: 10px 20px;
font-weight: 700;
white-space: inherit;
vertical-align: middle;
border: 2px solid transparent;
display: inline-block;
margin: 10px 10px 0 0;
border-radius: 50px;
overflow: hidden;
background-color: #FFE4C4;
border: 0;
line-height: 50px;
box-shadow: 0 3px 6px 0 rgba(0,0,0,0.16);
font-size: 20px;
text-decoration:none;
position: relative;
}
.text-box a.visit-btn:hover{
background-image: linear-gradient(to left,#FFE4C4,#a147e4);
background-position: left center;
}

```

## 5) prediction.html

```

<!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 Predicted Value</title>
</head>

<body>
  <section class="header">
    <nav>
      <a href="/"></a>
    </nav>
    <div class="text-box">
      <h1>The Predicted Car Resale Value is </h1>
      <h1>{{predict}}</h1>
    </div>
  </section>
</body>

</html>

```

## 6) prediction.css

```

.header{
  min-height: 100vh;
  width: 100%;
  background-image: linear-gradient(rgba(25,30,30,0.7),rgba(25,30,30,0.7)),url(../Images/car3.jpg);
  background-position: center;
  background-size: cover;
  position: relative;
}
nav{
  display:flex;
  padding: 2% 6%;
  justify-content: space-between;
  align-items: center;
}
.text-box{
  text-align: center;
  position: relative;
  color: #cfbba3;
  top:50%;
}
.text-box h1{
  margin-top: 50px;
  font-size: 55px;
}
body{

```

```
margin: 0;
font-family : 'Franklin Gothic Medium';
}
```

## Build the python flask app:

### 1) flaskapp.py

```
# 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
import requests

app = Flask(__name__)#initiate flask app

def load_model(file='crvp.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')

    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)

# NOTE: manually define and pass the array(s) of values to be scored in the next line
#payload_scoring = {"input_data": [{"fields": ['yearOfReg', 'powerPS', 'kilometer',
'monthOfRegistration','gearbox_labels', 'notRepairedDamage_labels', 'model_labels','brand_labels',
'fuelType_labels', 'vehicletype_labels']], "values": X}}

#response_scoring = requests.post('https://us-
south.ml.cloud.ibm.com/ml/v4/deployments/7f67cbcd-6222-413b-9901-
b2a72807ac82/predictions?version=2022-10-30', json=payload_scoring, headers={'Authorization':
'Bearer ' + mltoken})
#predictions = response_scoring.json()
#print(response_scoring.json())
#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)

```

## Project Development Phase

### 1) resalepredict.html

```

<!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">
<title>file</title>
</head>
<body>

<form action="{{ url_for('predict')}}" method="post">
  <h1 id="title">Car Resale Value Prediction</h1>
  <fieldset id="content">
    <legend>Please fill in your details here</legend>
  </div>
  <div class="form-element">
    <label class="long">Vehicle Type:</label>
    <br>
    <select class="dropdown" id="vehicletype" name="vehicleType">
      <option selected disabled hidden>Select the Vehicle Type</option>
      <option value="limousine">limousine</option>
      <option value="small car">small car</option>
      <option value="combination">combination</option>
      <option value="bus">bus </option>
      <option value="convertible">convertible</option>
      <option value="coupe">coupe</option>
      <option value="suv">suv</option>
      <option value="not-declared">not-declared</option>
      <option value="others">others</option>
    </select>
  </div>
  <div class="form-element">
    <label >Year Of Registration:</label>
    <input class="form-con"
      id="regyear"
      name="regyear"
      type="number"
      placeholder="Enter the Year Of Registration"
      required
    />
  </div>
  <div class="form-element">
    <label class="long">Gearbox:</label>
    <br>
    <select class="dropdown" id="gearbox" name="gearbox">
      <option selected disabled hidden>Select any one from below</option>
      <option value="manual">manual</option>
      <option value="automatic">automatic</option>
    </select>
  </div>
  <div class="form-element">
    <label >Power PS:</label>
    <input class="form-con"
      id="powerps"
      name="powerps"
    />
  </div>
</form>
```



```

        type="number"
        placeholder="Enter the Power PS"
        required
    />
</div>
<div class="form-element">
    <label class="long">Model:</label>
    <br>
    <select class="dropdown" id="modeltype" name="modeltype">
        <option selected disabled hidden>Select any one from below</option>
        <option value="not-declared">not-declared</option>
        <option value="grand">grand</option>
        <option value="golf">golf</option>
        <option value="fabia">fabia</option>
        <option value="3er">3er</option>
        <option value="2_reihe">2_reihe</option>
        <option value="c_max">c_max</option>
        <option value="3_reihe">3_reihe</option>
        <option value="passat">passat</option>
        <option value="navara">navara</option>
        <option value="polo">polo</option>
        <option value="twingo">twingo</option>
        <option value="a_klasse">a_klasse</option>
        <option value="scirocco">scirocco</option>
        <option value="5er">5er</option>
        <option value="andere">andere</option>
        <option value="civic">civic</option>
        <option value="punto">punto</option>
        <option value="e_klasse">e_klasse</option>
        <option value="clio">clio</option>
        <option value="kadett">kadett</option>
        <option value="one">one</option>
        <option value="fortwo">fortwo</option>
        <option value="1er">1er</option>
        <option value="b_klasse">b_klasse</option>
        <option value="a8">a8</option>
        <option value="jetta">jetta</option>
        <option value="c_klasse">c_klasse</option>
        <option value="micra">micra</option>
        <option value="vito">vito</option>
        <option value="sprinter">sprinter</option>
        <option value="astra">astra</option>
        <option value="156">156</option>
        <option value="escort">escort</option>
        <option value="forester">forester</option>
        <option value="xc_reihe">xc_reihe</option>
        <option value="fiesta">fiesta</option>
        <option value="scenic">scenic</option>
        <option value="ka">ka</option>
        <option value="a1">a1</option>
        <option value="transporter">transporter</option>
    </select>

```

<option value="focus">focus</option>  
<option value="a4">a4</option>  
<option value="tt">tt</option>  
<option value="a6">a6</option>  
<option value="jazz">jazz</option>  
<option value="omega">omega</option>  
<option value="slk">slk</option>  
<option value="7er">7er</option>  
<option value="combo">combo</option>  
<option value="corsa">corsa</option>  
<option value="80">80</option>  
<option value="147">147</option>  
<option value="glk">glk</option>  
<option value="z\_reihe">z\_reihe</option>  
<option value="sorento">sorento</option>  
<option value="ibiza">ibiza</option>  
<option value="mustang">mustang</option>  
<option value="eos">eos</option>  
<option value="touran">touran</option>  
<option value="getz">getz</option>  
<option value="insignia">insignia</option>  
<option value="almera">almera</option>  
<option value="megane">megane</option>  
<option value="a3">a3</option>  
<option value="r19">r19</option>  
<option value="caddy">caddy</option>  
<option value="mondeo">mondeo</option>  
<option value="cordoba">cordoba</option>  
<option value="colt">colt</option>  
<option value="impreza">impreza</option>  
<option value="vectra">vectra</option>  
<option value="lupo">lupo</option>  
<option value="berlingo">berlingo</option>  
<option value="m\_klasse">m\_klasse</option>  
<option value="tiguan">tiguan</option>  
<option value="6\_reihe">6\_reihe</option>  
<option value="c4">c4</option>  
<option value="panda">panda</option>  
<option value="up">up</option>  
<option value="i\_reihe">i\_reihe</option>  
<option value="ceed">ceed</option>  
<option value="kangoo">kangoo</option>  
<option value="5\_reihe">5\_reihe</option>  
<option value="yeti">yeti</option>  
<option value="octavia">octavia</option>  
<option value="zafira">zafira</option>  
<option value="mii">mii</option>  
<option value="rx\_reihe">rx\_reihe</option>  
<option value="6er">6er</option>  
<option value="modus">modus</option>  
<option value="fox">fox</option>

<option value="matiz">matiz</option>  
<option value="beetle">beetle</option>  
<option value="rio">rio</option>  
<option value="touareg">touareg</option>  
<option value="logan">logan</option>  
<option value="spider">spider</option>  
<option value="cuore">cuore</option>  
<option value="s\_max">s\_max</option>  
<option value="a2">a2</option>  
<option value="x\_reihe">x\_reihe</option>  
<option value="a5">a5</option>  
<option value="galaxy">galaxy</option>  
<option value="c3">c3</option>  
<option value="viano">viano</option>  
<option value="s\_klasse">s\_klasse</option>  
<option value="1\_reihe">1\_reihe</option>  
<option value="sharan">sharan</option>  
<option value="avensis">avensis</option>  
<option value="sl">sl</option>  
<option value="roomster">roomster</option>  
<option value="q5">q5</option>  
<option value="santa">santa</option>  
<option value="leon">leon</option>  
<option value="cooper">cooper</option>  
<option value="4\_reihe">4\_reihe</option>  
<option value="sportage">sportage</option>  
<option value="laguna">laguna</option>  
<option value="ptcruiser">ptcruiser</option>  
<option value="clk">clk</option>  
<option value="primera">primera</option>  
<option value="espace">espace</option>  
<option value="exeo">exeo</option>  
<option value="159">159</option>  
<option value="transit">transit</option>  
<option value="juke">juke</option>  
<option value="v40">v40</option>  
<option value="carisma">carisma</option>  
<option value="accord">accord</option>  
<option value="corolla">corolla</option>  
<option value="lanos">lanos</option>  
<option value="phaeton">phaeton</option>  
<option value="boxster">boxster</option>  
<option value="verso">verso</option>  
<option value="rav">rav</option>  
<option value="kuga">kuga</option>  
<option value="qashqai">qashqai</option>  
<option value="swift">swift</option>  
<option value="picanto">picanto</option>  
<option value="superb">superb</option>  
<option value="stilo">stilo</option>  
<option value="alhambra">alhambra</option>

<option value="911">911</option>  
<option value="m\_reihe">m\_reihe</option>  
<option value="roadster">roadster</option>  
<option value="ypsilon">ypsilon</option>  
<option value="galant">galant</option>  
<option value="justy">justy</option>  
<option value="90">90</option>  
<option value="sirion">sirion</option>  
<option value="signum">signum</option>  
<option value="crossfire">crossfire</option>  
<option value="agila">agila</option>  
<option value="duster">duster</option>  
<option value="v50">v50</option>  
<option value="mx\_reihe">mx\_reihe</option>  
<option value="meriva">meriva</option>  
<option value="discovery">discovery</option>  
<option value="c\_reihe">c\_reihe</option>  
<option value="v\_klasse">v\_klasse</option>  
<option value="yaris">yaris</option>  
<option value="c5">c5</option>  
<option value="aygo">aygo</option>  
<option value="seicento">seicento</option>  
<option value="cc">cc</option>  
<option value="carnival">carnival</option>  
<option value="fusion">fusion</option>  
<option value="bora">bora</option>  
<option value="cl">cl</option>  
<option value="tigra">tigra</option>  
<option value="300c">300c</option>  
<option value="500">500</option>  
<option value="100">100</option>  
<option value="q3">q3</option>  
<option value="cr\_reihe">cr\_reihe</option>  
<option value="spark">spark</option>  
<option value="x\_type">x\_type</option>  
<option value="ducato">ducato</option>  
<option value="s\_type">s\_type</option>  
<option value="x\_trail">x\_trail</option>  
<option value="toledo">toledo</option>  
<option value="altea">altea</option>  
<option value="voyager">voyager</option>  
<option value="calibra">calibra</option>  
<option value="v70">v70</option>  
<option value="bravo">bravo</option>  
<option value="range\_rover">range\_rover</option>  
<option value="forfour">forfour</option>  
<option value="tucson">tucson</option>  
<option value="q7">q7</option>  
<option value="cl">cl</option>  
<option value="citigo">citigo</option>  
<option value="jimny">jimny</option>

<option value="cx\_reihe">cx\_reihe</option>  
<option value="cayenne">cayenne</option>  
<option value="wrangler">wrangler</option>  
<option value="lybra">lybra</option>  
<option value="range\_rover\_sport">range\_rover\_sport</option>  
<option value="lancer">lancer</option>  
<option value="freelander">freelander</option>  
<option value="captiva">captiva</option>  
<option value="range\_rover\_evoque">range\_rover\_evoque</option>  
<option value="sandero">sandero</option>  
<option value="note">note</option>  
<option value="antara">antara</option>  
<option value="900">900</option>  
<option value="defender">defender</option>  
<option value="cherokee">cherokee</option>  
<option value="clubman">clubman</option>  
<option value="arosa">arosa</option>  
<option value="legacy">legacy</option>  
<option value="pajero">pajero</option>  
<option value="auris">auris</option>  
<option value="c2">c2</option>  
<option value="niva">niva</option>  
<option value="s60">s60</option>  
<option value="nubira">nubira</option>  
<option value="vivaro">vivaro</option>  
<option value="g\_klasse">g\_klasse</option>  
<option value="lodgy">lodgy</option>  
<option value="850">850</option>  
<option value="serie\_2">serie\_2</option>  
<option value="charade">charade</option>  
<option value="croma">croma</option>  
<option value="outlander">outlander</option>  
<option value="gl">gl</option>  
<option value="kaefer">kaefer</option>  
<option value="doblo">doblo</option>  
<option value="musa">musa</option>  
<option value="amarok">amarok</option>  
<option value="9000">9000</option>  
<option value="kalos">kalos</option>  
<option value="v60">v60</option>  
<option value="200">200</option>  
<option value="145">145</option>  
<option value="b\_max">b\_max</option>  
<option value="delta">delta</option>  
<option value="aveo">aveo</option>  
<option value="rangerover">rangerover</option>  
<option value="move">move</option>  
<option value="materia">materia</option>  
<option value="terios">terios</option>  
<option value="kalina">kalina</option>  
<option value="elefantino">elefantino</option>

```
        <option value="i3">i3</option>
        <option value="samara">samara</option>
        <option value="kappa">kappa</option>
        <option value="serie_3">serie_3</option>
        <option value="discovery_sport">discovery_sport</option>
    </select>
</div>
<div class="form-element">
    <label >Kilometer:</label>
    <input class="form-con"
        id="kms"
        name="kms"
        type="number"
        placeholder="Enter the Kilometer"
        required
    />
</div>
<div class="form-element">
    <label >Month Of Registration:</label>
    <input class="form-con"
        id="regmonth"
        name="regmonth"
        type="number"
        placeholder="Enter the Month Of Registration"
        required
    />
</div>
<div class="form-element">
    <label class="long">Fuel Type:</label>
    <br>
    <select class="dropdown" id="fuel" name="fuel">
        <option selected disabled hidden>Select any one from below</option>
        <option value="petrol">petrol</option>
        <option value="diesel">diesel</option>
        <option value="not-declared">not-declared</option>
        <option value="lpg">lpg</option>
        <option value="cng">cng</option>
        <option value="hybrid">hybrid</option>
        <option value="others">others</option>
        <option value="electric">electric</option>
    </select>
</div>
<div class="form-element">
    <label class="long">brand:</label>
    <br>
    <select class="dropdown" id="brand" name="brand">
        <option selected disabled hidden>Select any one from below</option>
        <option value="audi">audi</option>
        <option value="jeep">jeep</option>
        <option value="volkswagen">volkswagen</option>
        <option value="skoda">skoda</option>
    </select>
</div>
```

```

<option value="bmw">bmw</option>
<option value="peugeot">peugeot</option>
<option value="ford">ford</option>
<option value="mazda">mazda</option>
<option value="nissan">nissan</option>
<option value="renault">renault</option>
<option value="mercedes_benz">mercedes_benz</option>
<option value="honda">honda</option>
<option value="fiat">fiat</option>
<option value="opel">opel</option>
<option value="mini">mini</option>
<option value="smart">smart</option>
<option value="hyundai">hyundai</option>
<option value="alfa_romeo">alfa_romeo</option>
<option value="subaru">subaru</option>
<option value="volvo">volvo</option>
<option value="mitsubishi">mitsubishi</option>
<option value="kia">kia</option>
<option value="seat">seat</option>
<option value="lancia">lancia</option>
<option value="porsche">porsche</option>
<option value="citroen">citroen</option>
<option value="toyota">toyota</option>
<option value="chevrolet">chevrolet</option>
<option value="dacia">dacia</option>
<option value="suzuki">suzuki</option>
<option value="daihatsu">daihatsu</option>
<option value="chrysler">chrysler</option>
<option value="sonstige_autos">sonstige_autos</option>
<option value="jaguar">jaguar</option>
<option value="daewoo">daewoo</option>
<option value="rover">rover</option>
<option value="saab">saab</option>
<option value="land_rover">land_rover</option>
<option value="lada">lada</option>
<option value="trabant">trabant</option>
</select>
</div>
<div class="form-element">
  <label class="long">Not Repaired Damage:</label>
  <br>
  <select class="dropdown" id="dam" name="dam">
    <option selected disabled hidden>Select any one from below</option>
    <option value="Yes">Yes</option>
    <option value="No">No</option>
  </select>
</div>
<button type="submit" id="submit"><a href="submit">Check</a></button>
</fieldset>
</form>
<h2 style="text-align:center">{{ ypred }}</h2>

```

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

## 2) python flask.py

```
# -*- coding: utf-8 -*-
"""flask.ipynb
Automatically generated by Colaboratory.
Original file is located at
    https://colab.research.google.com/drive/1LtrfQqfRZpTMIIjeKKq0DizlENK0Tb7L
Build The Python Flask App
#Importing required libraries
"""

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

"""#Load the model and initialize Flask app"""

app = Flask(__name__)
filename = 'resale_model.sav'
model_rand = pickle.load(open(filename, 'rb'))

"""#Configure python flask.py to fetch the parameter values from the UI, and return the prediction"""

@app.route('/')
def index():
    return render_template('resaleintro.html')

@app.route('/predict', methods=['GET', 'POST'])
def predict():
    if request.method == 'POST':
        regyear = int(request.form['regyear'])
        powerps = float(request.form['powerps'])
        kms = float(request.form['kms'])
        regmonth = int(request.form.get('regmonth'))
        gearbox = request.form['gearbox']
        damage = request.form['dam']
        model = request.form.get('modeltype')
        brand = request.form.get('brand')
        fuelType = request.form.get('fuel')
        vehicletype = request.form.get('vehicletype')
```



```

        new_row = {'yearOfRegistration': regyear, 'powerPS': powerps, 'kilometer': kms,
'monthOfRegistration': regmonth,
                    'gearbox': gearbox, 'notRepairedDamage': damage, 'model': model, 'brand': brand, 'fuelType':
fuelType, 'vehicleType': vehicletype}

    print(new_row)
    new_df = pd.DataFrame(columns=['vehicleType', 'yearOfRegistration', '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)
        tr = mapper[i].fit_transform(new_df[i])
        new_df.loc[:, i + '_labels'] = pd.Series(tr, index=new_df.index)
    labeled = new_df[['yearOfRegistration', 'powerPS',
                      'kilometer', 'monthOfRegistration'] + [x + '_labels' for x in labels]]

    X = labeled.values
    print(X)
    y_prediction = model_rand.predict(X)
    print(y_prediction)
    return render_template('resalepredict.html', ypred='The resale value predicted is
{: .2f} $'.format(y_prediction[0]))
    else:
        return render_template('resalepredict.html')

```

```

"""#Run the app"""

```

```

if __name__ == '__main__':
    app.run(host='localhost', debug=True, threaded=False)

```

### 3) resaleintro.html

```

<!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">
    <title>Welcome</title>
</head>

<body>
    <div class="Section_top">

```

```

<div class="content">
  <h1>Welcome <span>Check your Car Resale Value</span></h1>
  <h3></h3>
  <a href="predict"><strong>Check</strong></a>
  <h3>
    With difficult economic conditions, it is likely that sales of second-hand imported
(reconditioned) cars and used cars will increase.
    In many developed countries, it is common to lease a car rather than buying it outright.
    After the lease period is over, the buyer has the possibility to buy the car at its residual value,
i.e. its expected resale value.
    Thus, it is of commercial interest to sellers/financers to be able to predict the salvage value
(residual value) of cars with accuracy.
    We just need some of your information to predict the resale value of your car.
  </h3>
</div>
</div>
</body>

</html>
<style>
body,html{
  margin: 0;
  padding: 0;
  width: 100%;
  height: 100vh;
  font-family: sans-serif;
}
.Section_top{
  width: 100%;
  height: 200%;
  overflow: hidden;
  position: relative;
  background-image: url("https://miro.medium.com/max/648/1*kQBj7l-Y1WPZfX9nKIYL1Q.jpeg");
  background-position: center;
  background-repeat: no-repeat;
  background-size: cover;
  text-align: center;
  justify-content: center;
  animation: change 10s infinite ease-in-out;
}
.content{
  padding:20px;
  background:rgb(0,0,0,0.5);
  position: absolute;
  top: 50%;
  left: 50%;
  transform: translate(-50%, -50%);
  text-transform: uppercase;
}
.content h3{
  text-transform:none;

```

```

padding-top:20px;
text-align:justify;
font-size:22px;
color:white;
}
.content h1{
color: blue;
font-size: 60px;
letter-spacing: 7px;
}
.content h1 span{
color: white;
}
@keyframes hue {
from {
background-position:100% 200%;
}
to {
background-position:200% 100%;
}
}
.content a{
background: #85c1ee;
padding: 10px 24px;
text-decoration: none;
font-size: 18px;
border-radius: 20px;
}
.content a:hover{
color: #fff;
background-size:400% 400%;
background: linear-gradient(92deg, purple, blue);
animation: hue 10s infinite linear;
}
@keyframes change{
0%
{
background-image: url("https://miro.medium.com/max/1400/1*ftnM93QhlS0A7I55QegbrA.jpeg");
}
20%
{
background-image: url("https://repository-images.githubusercontent.com/499116129/ebf45738-0201-41d2-a851-84b0b8616d5a");
}
40%
{
background-image: url("https://aihubprojects.com/wp-content/uploads/2020/04/404ae051a8394694a750846b78499150_c242x0-1228x690-1.jpg");
}
60%
{

```

```

        background-image: url("https://thenewdaily.com.au/wp-content/uploads/2020/10/1603332628-used-cars-edm.jpg?resize=960%2C540");
    }
    80%
    {
        background-image: url("https://www.financialexpress.com/wp-content/uploads/2020/11/car-rental-1.jpg");
    }
    100%
    {
        background-image: url("https://www.usnews.com/object/image/00000182-a54f-dc41-a1db-a56f1a8e0000/1_Alan_Powdrill_getty_images.jpg?update-time=&size=responsive640");
    }
}
@media(max-width:100%) {
    body,style {
        height: 200vh;
    }
}
</style>

```

#### 4) resalepredict.html

```

<!-------CASCADED STYLE SHEET----->

```

```

<!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">
    <title>file</title>
</head>
<body>

    <form action="{ { url_for('predict') } }" method="post">
        <h1 id="title">Car Resale Value Prediction</h1>
        <fieldset id="content">
            <legend>Please fill in your details here</legend>

            </div>
            <div class="form-element">
                <label class="long">Vehicle Type:</label>

```

```

<br>
<select class="dropdown" id="vehicletype" name="vehicleType">
  <option selected disabled hidden>Select the Vehicle Type</option>
  <option value="limousine">limousine</option>
  <option value="small car">small car</option>
  <option value="combination">combination</option>
  <option value="bus">bus </option>
  <option value="convertible">convertible</option>
  <option value="coupe">coupe</option>
  <option value="suv">suv</option>
  <option value="not-declared">not-declared</option>
  <option value="others">others</option>

</select>
</div>
<div class="form-element">
  <label >Year Of Registration:</label>
  <input class="form-con"
    id="regyear"
    name="regyear"
    type="number"
    placeholder="Enter the Year Of Registration"
    required
  />
</div>
<div class="form-element">
  <label class="long">Gearbox:</label>
  <br>
  <select class="dropdown" id="gearbox" name="gearbox">
    <option selected disabled hidden>Select any one from below</option>
    <option value="manual">manual</option>
    <option value="automatic">automatic</option>
  </select>
</div>
<div class="form-element">
  <label >Power PS:</label>
  <input class="form-con"
    id="powerps"
    name="powerps"
    type="number"
    placeholder="Enter the Power PS"
    required
  />
</div>
<div class="form-element">
  <label class="long">Model:</label>
  <br>
  <select class="dropdown" id="modeltype" name="modeltype">
    <option selected disabled hidden>Select any one from below</option>

```

<option value="not-declared">not-declared</option>  
<option value="grand">grand</option>  
<option value="golf">golf</option>  
<option value="fabia">fabia</option>  
<option value="3er">3er</option>  
<option value="2\_reihe">2\_reihe</option>  
<option value="c\_max">c\_max</option>  
<option value="3\_reihe">3\_reihe</option>  
<option value="passat">passat</option>  
<option value="navara">navara</option>  
<option value="polo">polo</option>  
<option value="twingo">twingo</option>  
<option value="a\_klasse">a\_klasse</option>  
<option value="scirocco">scirocco</option>  
<option value="5er">5er</option>  
<option value="andere">andere</option>  
<option value="civic">civic</option>  
<option value="punto">punto</option>  
<option value="e\_klasse">e\_klasse</option>  
<option value="clio">clio</option>  
<option value="kadett">kadett</option>  
<option value="one">one</option>  
<option value="fortwo">fortwo</option>  
<option value="1er">1er</option>  
<option value="b\_klasse">b\_klasse</option>  
<option value="a8">a8</option>  
<option value="jetta">jetta</option>  
<option value="c\_klasse">c\_klasse</option>  
<option value="micra">micra</option>  
<option value="vito">vito</option>  
<option value="sprinter">sprinter</option>  
<option value="astra">astra</option>  
<option value="156">156</option>  
<option value="escort">escort</option>  
<option value="forester">forester</option>  
<option value="xc\_reihe">xc\_reihe</option>  
<option value="fiesta">fiesta</option>  
<option value="scenic">scenic</option>  
<option value="ka">ka</option>  
<option value="a1">a1</option>  
<option value="transporter">transporter</option>  
<option value="focus">focus</option>  
<option value="a4">a4</option>  
<option value="tt">tt</option>  
<option value="a6">a6</option>  
<option value="jazz">jazz</option>  
<option value="omega">omega</option>  
<option value="slk">slk</option>  
<option value="7er">7er</option>  
<option value="combo">combo</option>  
<option value="corsa">corsa</option>

<option value="80">80</option>  
<option value="147">147</option>  
<option value="glk">glk</option>  
<option value="z\_reihe">z\_reihe</option>  
<option value="sorento">sorento</option>  
<option value="ibiza">ibiza</option>  
<option value="mustang">mustang</option>  
<option value="eos">eos</option>  
<option value="touran">touran</option>  
<option value="getz">getz</option>  
<option value="insignia">insignia</option>  
<option value="almera">almera</option>  
<option value="megane">megane</option>  
<option value="a3">a3</option>  
<option value="r19">r19</option>  
<option value="caddy">caddy</option>  
<option value="mondeo">mondeo</option>  
<option value="cordoba">cordoba</option>  
<option value="colt">colt</option>  
<option value="impreza">impreza</option>  
<option value="vectra">vectra</option>  
<option value="lupo">lupo</option>  
<option value="berlingo">berlingo</option>  
<option value="m\_klasse">m\_klasse</option>  
<option value="tiguan">tiguan</option>  
<option value="6\_reihe">6\_reihe</option>  
<option value="c4">c4</option>  
<option value="panda">panda</option>  
<option value="up">up</option>  
<option value="i\_reihe">i\_reihe</option>  
<option value="ceed">ceed</option>  
<option value="kangoo">kangoo</option>  
<option value="5\_reihe">5\_reihe</option>  
<option value="yeti">yeti</option>  
<option value="octavia">octavia</option>  
<option value="zafira">zafira</option>  
<option value="mii">mii</option>  
<option value="rx\_reihe">rx\_reihe</option>  
<option value="6er">6er</option>  
<option value="modus">modus</option>  
<option value="fox">fox</option>  
<option value="matiz">matiz</option>  
<option value="beetle">beetle</option>  
<option value="rio">rio</option>  
<option value="touareg">touareg</option>  
<option value="logan">logan</option>  
<option value="spider">spider</option>  
<option value="cuore">cuore</option>  
<option value="s\_max">s\_max</option>  
<option value="a2">a2</option>  
<option value="x\_reihe">x\_reihe</option>

<option value="a5">a5</option>  
<option value="galaxy">galaxy</option>  
<option value="c3">c3</option>  
<option value="viano">viano</option>  
<option value="s\_klasse">s\_klasse</option>  
<option value="1\_reihe">1\_reihe</option>  
<option value="sharan">sharan</option>  
<option value="avensis">avensis</option>  
<option value="sl">sl</option>  
<option value="roomster">roomster</option>  
<option value="q5">q5</option>  
<option value="santa">santa</option>  
<option value="leon">leon</option>  
<option value="cooper">cooper</option>  
<option value="4\_reihe">4\_reihe</option>  
<option value="sportage">sportage</option>  
<option value="laguna">laguna</option>  
<option value="ptcruiser">ptcruiser</option>  
<option value="clk">clk</option>  
<option value="primera">primera</option>  
<option value="espace">espace</option>  
<option value="exeo">exeo</option>  
<option value="159">159</option>  
<option value="transit">transit</option>  
<option value="juke">juke</option>  
<option value="v40">v40</option>  
<option value="carisma">carisma</option>  
<option value="accord">accord</option>  
<option value="corolla">corolla</option>  
<option value="lanos">lanos</option>  
<option value="phaeton">phaeton</option>  
<option value="boxster">boxster</option>  
<option value="verso">verso</option>  
<option value="rav">rav</option>  
<option value="kuga">kuga</option>  
<option value="qashqai">qashqai</option>  
<option value="swift">swift</option>  
<option value="picanto">picanto</option>  
<option value="superb">superb</option>  
<option value="stilo">stilo</option>  
<option value="alhambra">alhambra</option>  
<option value="911">911</option>  
<option value="m\_reihe">m\_reihe</option>  
<option value="roadster">roadster</option>  
<option value="ypsilon">ypsilon</option>  
<option value="galant">galant</option>  
<option value="justy">justy</option>  
<option value="90">90</option>  
<option value="sirion">sirion</option>  
<option value="signum">signum</option>  
<option value="crossfire">crossfire</option>



<option value="agila">agila</option>  
<option value="duster">duster</option>  
<option value="v50">v50</option>  
<option value="mx\_reihe">mx\_reihe</option>  
<option value="meriva">meriva</option>  
<option value="discovery">discovery</option>  
<option value="c\_reihe">c\_reihe</option>  
<option value="v\_klasse">v\_klasse</option>  
<option value="yaris">yaris</option>  
<option value="c5">c5</option>  
<option value="aygo">aygo</option>  
<option value="seicento">seicento</option>  
<option value="cc">cc</option>  
<option value="carnival">carnival</option>  
<option value="fusion">fusion</option>  
<option value="bora">bora</option>  
<option value="cl">cl</option>  
<option value="tigra">tigra</option>  
<option value="300c">300c</option>  
<option value="500">500</option>  
<option value="100">100</option>  
<option value="q3">q3</option>  
<option value="cr\_reihe">cr\_reihe</option>  
<option value="spark">spark</option>  
<option value="x\_type">x\_type</option>  
<option value="ducato">ducato</option>  
<option value="s\_type">s\_type</option>  
<option value="x\_trail">x\_trail</option>  
<option value="toledo">toledo</option>  
<option value="altea">altea</option>  
<option value="voyager">voyager</option>  
<option value="calibra">calibra</option>  
<option value="v70">v70</option>  
<option value="bravo">bravo</option>  
<option value="range\_rover">range\_rover</option>  
<option value="forfour">forfour</option>  
<option value="tucson">tucson</option>  
<option value="q7">q7</option>  
<option value="c1">c1</option>  
<option value="citigo">citigo</option>  
<option value="jimny">jimny</option>  
<option value="cx\_reihe">cx\_reihe</option>  
<option value="cayenne">cayenne</option>  
<option value="wrangler">wrangler</option>  
<option value="lybra">lybra</option>  
<option value="range\_rover\_sport">range\_rover\_sport</option>  
<option value="lancer">lancer</option>  
<option value="freelander">freelander</option>  
<option value="captiva">captiva</option>  
<option value="range\_rover\_evoque">range\_rover\_evoque</option>  
<option value="sander"o">sander"o</option>

```
<option value="note">note</option>
<option value="antara">antara</option>
<option value="900">900</option>
<option value="defender">defender</option>
<option value="cherokee">cherokee</option>
<option value="clubman">clubman</option>
<option value="arosa">arosa</option>
<option value="legacy">legacy</option>
<option value="pajero">pajero</option>
<option value="auris">auris</option>
<option value="c2">c2</option>
<option value="niva">niva</option>
<option value="s60">s60</option>
<option value="nubira">nubira</option>
<option value="vivaro">vivaro</option>
<option value="g_klasse">g_klasse</option>
<option value="lodgy">lodgy</option>
<option value="850">850</option>
<option value="serie_2">serie_2</option>
<option value="charade">charade</option>
<option value="croma">croma</option>
<option value="outlander">outlander</option>
<option value="gl">gl</option>
<option value="kaefer">kaefer</option>
<option value="doblo">doblo</option>
<option value="musa">musa</option>
<option value="amarok">amarok</option>
<option value="9000">9000</option>
<option value="kalos">kalos</option>
<option value="v60">v60</option>
<option value="200">200</option>
<option value="145">145</option>
<option value="b_max">b_max</option>
<option value="delta">delta</option>
<option value="aveo">aveo</option>
<option value="rangerover">rangerover</option>
<option value="move">move</option>
<option value="materia">materia</option>
<option value="terios">terios</option>
<option value="kalina">kalina</option>
<option value="elefantino">elefantino</option>
<option value="i3">i3</option>
<option value="samara">samara</option>
<option value="kappa">kappa</option>
<option value="serie_3">serie_3</option>
<option value="discovery_sport">discovery_sport</option>
</select>
</div>
```

```
<div class="form-element">
  <label >Kilometer:</label>
  <input class="form-con"
    id="kms"
    name="kms"
    type="number"
    placeholder="Enter the Kilometer"
    required
  />
</div>
<div class="form-element">
  <label >Month Of Registration:</label>
  <input class="form-con"
    id="regmonth"
    name="regmonth"
    type="number"
    placeholder="Enter the Month Of Registration"
    required
  />
</div>
<div class="form-element">
  <label class="long">Fuel Type:</label>
  <br>
  <select class="dropdown" id="fuel" name="fuel">
    <option selected disabled hidden>Select any one from below</option>
    <option value="petrol">petrol</option>
    <option value="diesel">diesel</option>
    <option value="not-declared">not-declared</option>
    <option value="lpg">lpg</option>
    <option value="cng">cng</option>
    <option value="hybrid">hybrid</option>
    <option value="others">others</option>
    <option value="electric">electric</option>

  </select>
</div>

<div class="form-element">
  <label class="long">brand:</label>
  <br>
  <select class="dropdown" id="brand" name="brand">
    <option selected disabled hidden>Select any one from below</option>
    <option value="audi">audi</option>
    <option value="jeep">jeep</option>
    <option value="volkswagen">volkswagen</option>
    <option value="skoda">skoda</option>
    <option value="bmw">bmw</option>
    <option value="peugeot">peugeot</option>
    <option value="ford">ford</option>
    <option value="mazda">mazda</option>
```

```

        <option value="nissan">nissan</option>
        <option value="renault">renault</option>
        <option value="mercedes_benz">mercedes_benz</option>
        <option value="honda">honda</option>
        <option value="fiat">fiat</option>
        <option value="opel">opel</option>
        <option value="mini">mini</option>
        <option value="smart">smart</option>
        <option value="hyundai">hyundai</option>
        <option value="alfa_romeo">alfa_romeo</option>
        <option value="subaru">subaru</option>
        <option value="volvo">volvo</option>
        <option value="mitsubishi">mitsubishi</option>
        <option value="kia">kia</option>
        <option value="seat">seat</option>
        <option value="lancia">lancia</option>
        <option value="porsche">porsche</option>
        <option value="citroen">citroen</option>
        <option value="toyota">toyota</option>
        <option value="chevrolet">chevrolet</option>
        <option value="dacia">dacia</option>
        <option value="suzuki">suzuki</option>
        <option value="daihatsu">daihatsu</option>
        <option value="chrysler">chrysler</option>
        <option value="sonstige_autos">sonstige_autos</option>
        <option value="jaguar">jaguar</option>
        <option value="daewoo">daewoo</option>
        <option value="rover">rover</option>
        <option value="saab">saab</option>
        <option value="land_rover">land_rover</option>
        <option value="lada">lada</option>
        <option value="trabant">trabant</option>

    </select>
</div>
<div class="form-element">
    <label class="long">Not Repaired Damage:</label>
    <br>
    <select class="dropdown" id="dam" name="dam">
        <option selected disabled hidden>Select any one from below</option>
        <option value="Yes">Yes</option>
        <option value="No">No</option>
    </select>
</div>

    <button type="submit" id="submit"><a href="submit">Check</a></button>
</fieldset>
</form>
<h2 style="text-align:center">{{ ypred }}</h2>

</body>

```

```
</html>
```

```
<style>
```

```
  @import
  url('https://fonts.googleapis.com/css2?family=Exo:ital,wght@1,300&family=Rubik:wght@300&display=
  swap');
  *,*::before,*::after{
  font-family: 'Rubik', sans-serif;
  color:white;
  box-sizing:border-box;
  }
  body{
    margin-top:6vh;

background:url(https://www.incimages.com/uploaded_files/image/1920x1080/getty_1139630453_40774
5.jpg),
  linear-gradient(120deg, #ff0000, #150a8ae7);
  background-size:cover;
  background-repeat:no-repeat;
  background-blend-mode:overlay;
  background-position:center;
  }
  h1 {
    font-weight: 600;
    line-height: 2.6;
  }
  p {
    font-size: 1.65rem;
  }
  h1,p {
    text-align:center;
    margin-top: 0;
    margin-bottom: 0.5rem;
  }
  a{
    text-decoration:none;
  }
  label{
    line-height:2.5rem;
    font-size:25px;
  }
  input{
    color:black;
    font-weight:600;
  }
  input[type="checkbox"]{
    min-height:1.1rem;
    min-width:1.1rem;
  }
  input[type="radio"]{
    min-height:1.3rem;
```

```
    min-width:1.3rem;
  }
select,option{
  color:black;
  font-weight:600;
  text-align:start;
  width:100%;
  height:35px;
  border-radius:5px;
}
option{
  font-size:1.013rem;
}
textarea{
  min-width:100%;
  min-height:150px;
  color:black;
  font-weight:600;
  border-radius:5px;
}
textarea::placeholder{
  padding-left:10px;
  font-size:1.031rem;
}
textarea:focus{
  outline:3px solid rgb(0, 15, 255,0.6);
}
select:focus{
  outline:3px solid rgb(0, 15, 255,0.6);
}
select{
  font-size:1.013rem;
  color:grey;
  padding-left:13px;
}
#survey-form{
  background:rgb(0,0,0,0.7);
  min-height:180vh;
  margin:10vh auto;
  max-width:750px;
  border-radius:10px;
  display:flex;
  flex-direction:column;
  align-items:center;
  justify-content:space-around;
}
#content{
  width:90%;
  min-height:140vh;
  margin:1.13rem auto;
  display:grid;
```

```
    grid-template-columns:100%;
    grid-gap:1.5rem;
    justify-items:center;
    border-radius:10px;
}
.form-element{
    width:90%;
    display:block;
}
.form-con{
    width:100%;
    height:35px;
    border:none;
    border-radius:5px;
}
.form-con::placeholder{
    font-size:1.013rem;
    padding-left:15px;
    font-weight:600;
}
.form-con:focus{
    outline:3px solid rgb(0, 15, 255,0.6);
}
.long{
    line-height:1.6rem;
}
.check{
    min-height:1.013rem;
    min-width:1.013rem;
}
#submit{
    background: linear-gradient(-60deg, #ff0000, #da2727ba, #2658ccba, #150a8ae7);
    width:90%;
    border-radius:5px;
    min-height:2.031rem;
    border:none;
    font-weight:600;
    letter-spacing:0.1rem;
    cursor:pointer;
    margin-bottom:6vh;
    font-size:1.031rem;
    background-size: 250% 250%;
    animation: hover-effect 5s ease infinite;
}
#submit:hover{
    outline:3px solid rgb(0, 15, 255,0.6);
}
#submit:focus{
    animation: hover-effect 5s ease infinite;
    outline:3px solid rgb(0, 15, 255,0.6);
}
```

```
textarea,select{
  margin-top:1vh;
}
@keyframes hover-effect{
  0% {
    background-position: 0% 50%;
  }
  50% {
    background-position: 100% 50%;
  }
  100% {
    background-position: 0% 50%;
  }
}
@media(max-width:900px){
  #content,#survey-form{
    max-width:650px;
  }
  #content{
    margin:auto;
    max-width:500px;
  }
  #submit{
    max-width:500px;
    margin:7vh 0;
  }
}
@media(max-width:500px){
  .long{
    line-height:2.0rem;
  }
  h1{
    font-size:1.7rem;
  }
  p{
    font-size:1.3rem;
  }
  textarea,select{
    margin-top:8px;
  }
  *{
    font-size:1.031rem;
    margin:auto 0;
  }
}
</style>
```