Team ID	PNT2022TMID05680
Project Name	Project - Car Resale Value Prediction
Maximum Marks	4 Marks

Sprint - 1: Python notebook to Data Cleaning

Import all required libraries
import numpy as np
import pandas as pd
import datetime
import seaborn as sns
import matplotlib.pyplot as plt
from sklearn.model_selection import train_test_split , StratifiedShuffleSplit , RandomizedSearchCV
from sklearn.ensemble import RandomForestRegressor
from sklearn.metrics import r2_score

Load data
df = pd.read_csv('car data.csv')
df.head()

Perform EDA
Check the shape of data
df.shape

Check unique values of some features
print(df['Fuel_Type'].unique())
print(df['Seller_Type'].unique())
print(df['Transmission'].unique())
print(df['Owner'].unique())

Check whether there is null values or not
df.isnull().sum()

Describe data
df.describe()
Drop Car_Name
df1 = df.drop(columns='Car_Name')
df1.shape

Find today's data to check that how old the car is
x = datetime.datetime.now()
x.year

Make new feature of number of years from existing feature

df1['No._of_Years'] = x.year - df1.Year
df1.head()

Now drop Year feature
df1.drop(columns = 'Year' , axis=1 , inplace=True)
df1.head()

Apply OneHotEncoding
df1 = pd.get_dummies(df1 , drop_first=True)
df1.head()

HTML PAGE:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Document</title>
</head>
<body>
<div style="color:rgb(255, 60, 0)">
<form action="{{ url_for('predict')}}" method="post">
<h2>Predictive analysis</h2>
<h3>Year</h3>
<input id="first" name="Year" type="number " placeholder="Eg. 2014">
<h3>What is the Showroom Price?(In lakhs)</h3><br><input id="second"
name="Present_Price" required="required" placeholder="Eg. 14 (its mean 14 lakh)">
<h3>How Many Kilometers Drived?</h3><input id="third" name="Kms_Driven"
required="required" placeholder="Eg. 24000">
<h3>How much owners previously had the car(0 or 1 or 3) ?</h3><br><input id="fourth"
name="Owner" required="required" placeholder="Eg. 1">
<h3>What Is the Fuel type?</h3><br><select name="Fuel_Type_Petrol" id="fuel"
required="required">
<option value="Petrol">Petrol</option>
<option value="Diesel">Diesel</option>
<option value="Diesel">CNG</option>
</select>
<h3>Are you A Dealer or Individual</h3><br><select name="Seller_Type_Individual"
```

```html
id="resea" required="required">
<option value="Dealer">Dealer</option>
<option value="Individual">Individual</option>
</select>
<h3>Transmission type</h3><br><select name="Transmission_Mannual" id="research"
required="required">
<option value="Mannual">Manual Car</option>
<option value="Automatic">Automatic Car</option>
</select>
<br><br><button id="sub" type="submit ">Calculate the Selling Price</button>
<br>

</form>

<br><br><h3>{{ prediction_text }}<h3>
</div>

<style>
body {
background-color: aqua;
text-align: center;
padding: 0px;
}
#research {
font-size: 18px;
width: 100px;
height: 23px;
top: 23px;
}
#box {
border-radius: 60px;
border-color: 45px;
border-style: solid;
font-family: cursive;
text-align: center;
background-color: rgb(168, 131, 61);
font-size: medium;
position: absolute;
```

```css
width: 700px;
bottom: 9%;
height: 850px;
right: 30%;
padding: 0px;
margin: 0px;
font-size: 14px;
}
#fuel {
width: 83px;
height: 43px;
text-align: center;
border-radius: 14px;
font-size: 20px;
}
#fuel:hover {
background-color: coral;
}
#research {
width: 99px;
height: 43px;
text-align: center;
border-radius: 14px;
font-size: 18px;
}
#research:hover {
background-color: coral;
}
#resea {
width: 99px;
height: 43px;
text-align: center;
border-radius: 14px;
font-size: 18px;
}
#resea:hover {
```

```css
background-color: coral;
}
#sub {
width: 120px;
height: 43px;
text-align: center;
border-radius: 14px;
font-size: 18px;
}
#sub:hover {
background-color: darkcyan;
}
#first {
border-radius: 14px;
height: 25px;
font-size: 20px;
text-align: center;
}
#second {
border-radius: 14px;
height: 25px;
font-size: 20px;
text-align: center;
}
#third {
border-radius: 14px;
height: 25px;
font-size: 20px;
text-align: center;
}
#fourth {
border-radius: 14px;
height: 25px;
font-size: 20px;
text-align: center;
}
```

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