TABLE OF CONTENTS

CHAPTER - 1

INTRODUCTION

1.1 Project Overview:

The used car market is an ever-rising industry, which has almost doubled its market value in the last few years. The emergence of online portals such as CarDheko, Quikr, Carwale, Cars24, and many others has facilitated the need for both the customer and the seller to be better informed about the trends and patterns that determine the value of the used car in the market. Machine Learning algorithms can be used to predict the retail value of a car, based on a certain set of features.

Different websites have different algorithms to generate the retail price of the used cars, and hence there isn't a unified algorithm for determining the price. By training statistical models for predicting the prices, one can easily get a rough estimate of the price without actually entering the details into the desired website.

The dataset used in this project for car price prediction model was downloaded from Kaggle. It contains data about all the main features that contribute to the price of a car. So, this project is initiated by importing the necessary Python libraries and the dataset.

The price of a car depends on a lot of factors like the goodwill of the car's brand, features of the car, horsepower and the mileage it gives and many more.

1.2 Purpose:

The main idea of making a car resale value prediction system is to get hands-on practice for python using Data Science. Car resale value prediction is the system to predict the amount of resale value based on the parameters provided by the user. This project easily identifies the pros and cons of the car. Hence it is easy to compare the car with other brands and predict the value of the car accurately.

CHAPTER - 2

LITREATURE SURVEY:

2.1 Existing problem:

The main existing problem is on maintaining the log of services, Engine services, break oil services. Without Knowing this we cannot able to predict the accurate value of the car. And the second existing problem is Demand curve. When one person asks for one model car then that same model car will be asked by another person. The seller will give for the high demand who ask. And the third problem is many sellers are selling the old car with high profit. The buyer also cannot aware of these things.

2.2 Reference:

1.USED CAR PRICE PREDICTION Praful Rane1, Deep Pandya2, Dhawal Kotak3[4 APR 2022]

The first paper is Predicting the price of Used Car Using Machine Learning Techniques. In this paper, they investigate the application of supervised machine learning techniques to predict the price of used cars in Mauritius. The predictions are based on historical data collected from daily newspapers. Different techniques like multiple linear regression analysis, k-nearest neighbor, naïve bayes and decision trees have been used to make the predictions.

2.Used Cars Price Prediction using Supervised Learning Techniques [Pattabiraman Venkatasubbu, Mukkesh Ganesh, Dec 2019]

Overfitting and underfitting come into picture when we create our statistical models. The models might be too biased to the training data and might not perform well on the test dataset. This is called overfitting. Likewise, the models might not take into consideration all the variance present in the population and perform poorly on a test data set. This is called underfitting. A perfect balance needs to be achieved between these two, which leads to the concept of Bias-Variancetrade off. Pierre

Geurts has introduced and explained how bias-variance tradeoff is achieved in both regression and classification. The selection of variables/attribute plays a vital role in influencing both the bias and variance of the statistical model. Robert Tibshirani proposed a new method called Lasso, which minimizes the residual sum of squares. This returns a subset of attributes which need to be included in multiple regression to get the minimal error rate. Similarly, decision trees suffer from overfitting if they are not pruned/shrunk. Trevor Hastie and Daryl Pregibon have explained the concept of pruning in their research paper. Moreover, hypothesis testing using ANOVA is needed to verify whether the different groups of errors really differ from each other. This is explained by TK Kim and Tae Kyun . A Post-Hoc test needs to be performed along with ANOVA if the number of groups exceeds two.

3. Used Cars Price Prediction and Valuation using Data Mining Techniques [Abdulla AlShared,12-2021]

Today, the transportation industry is considered to be one of the backbones of the economy. Automobiles are referred to as the "Industry of Industries" in developed nations. According to industry professionals, the UAE's automotive industry has seen remarkable growth. Besides being the fastest-growing nation in the automobile industry, it represents its global presence. In Dubai, like most other countries, cars are gaining a great deal of popularity among the local population and the ex-pat community who work in the country. There are used cars for sale in the UAE of all makes and models, even cars from well-known brands (Rizvi, 2019). UAE's auto industry is experiencing constant growth, registered at 27%, with a total industry volume (TIV) of 310,403 cars. Approximately 1.49 million units were sold within the Gulf Cooperation Council (GCC). Compared to the global market, the Gulf Cooperation Council countries are growing at 10% in 2021 (Research, 2020). So far, the market in the UAE has grown by 19%. It is thus the world's largest market in terms of growth rate.

4.Enis Gegic et all proposed Car Price Prediction using Machine Learning Techniques.

In this paper, they proposed an ensemble model by collecting different types of machine learning techniques like Support Vector Machine, Random Forest and

6

Artificial neural network. They collected the data from the web portal www.autopijaca.ba and build this model to predict the price of used cars in Herzegovina and Bosnia. The accuracy of their model is 87%.

5.Nitis Monburinon et al proposed a prediction of Prices for Used Car by Using Regression Models.

In this paper, the authors selected the data from the German ecommerce site. The main goal of this work is to find a suitable predictive model to predict the used cars price. They used different machine learning techniques for comparison and used the mean absolute error (MAE) as the metric. They proposed that their model with gradient boosted regression has a lower error with MAE value 0.28 and this gives the higher performance where linear regression has the MAE value 0.55, random forest with MAE value 0.35.

2.3 Problem Statement Definition:

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.

In order to predict the resale value of the car, we proposed an intelligent, flexible, and effective system that is based on using regression algorithms. Considering the main factors which would affect the resale value of a vehicle a regression model is to be built that would give the nearest resale value of the vehicle. We will be using various regression algorithms and algorithm with the best accuracy will be taken as a solution, then it will be integrated to the web-based application where the user is notified with the status of his product.

7

CHAPTER - 3

IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas:

PNT2022TMID30244

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes. It is a useful tool to helps teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it.

The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.

An empathy map canvas helps brands provide a better experience for users by helping teams understand the perspectives and mindset of their customers. Using a template to create an empathy map canvas reduces the preparation time and standardizes the process so you create empathy map canvases of similar quality.

3.2 Ideation & Brainstorm:

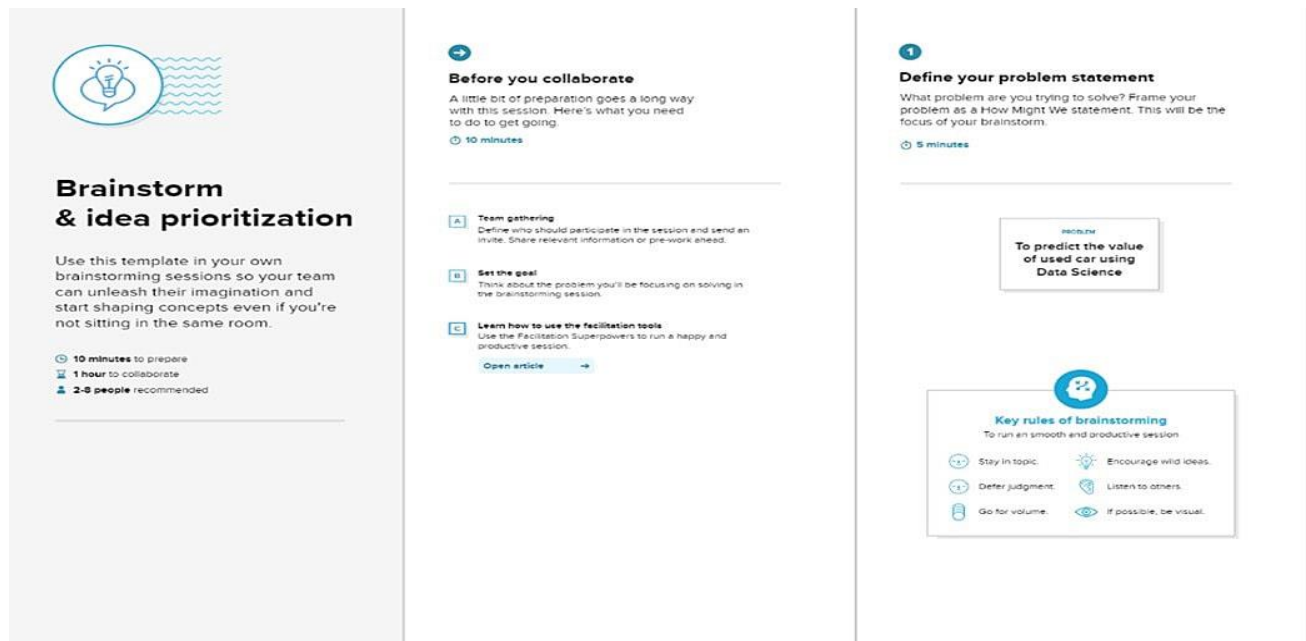### Step-1: Team Gathering, Collaboration and Select the Problem Statement

Figure 3.2.1 Team Gathering, Collaboration and Select the Problem Statement

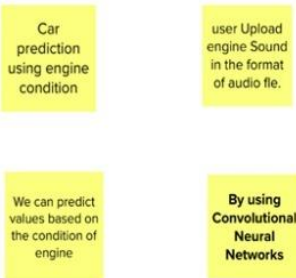# Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.
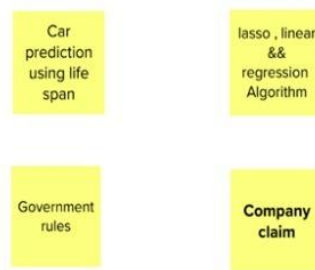
⏱ 10 minutes

TIP

You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Chidambaram
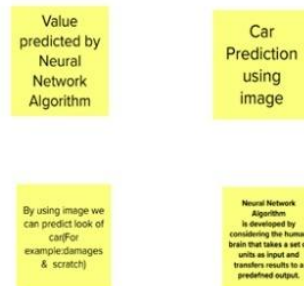
Car prediction using engine condition	user Upload engine Sound in the format of audio fle.
We can predict values based on the condition of engine	**By using Convolutional Neural Networks**

Harrish

Car prediction using life span	lasso , linear && regression Algorithm
Government rules	**Company claim**

Vengatesh

Car prediction using XGBoost Algorithm	Insurance
XGBoost as a regression model gave the best MSLE and RMSLE values	Accurate Result

Mukesh Kumar

Value predicted by Neural Network Algorithm	Car Prediction using image
By using image we can predict look of car(For example:damages & scratch)	Neural Network Algorithm Is developed by considering the human brain that takes a set of units as input and transfers results to a predefined output.

10

Figure 3.2.2 Brainstorm
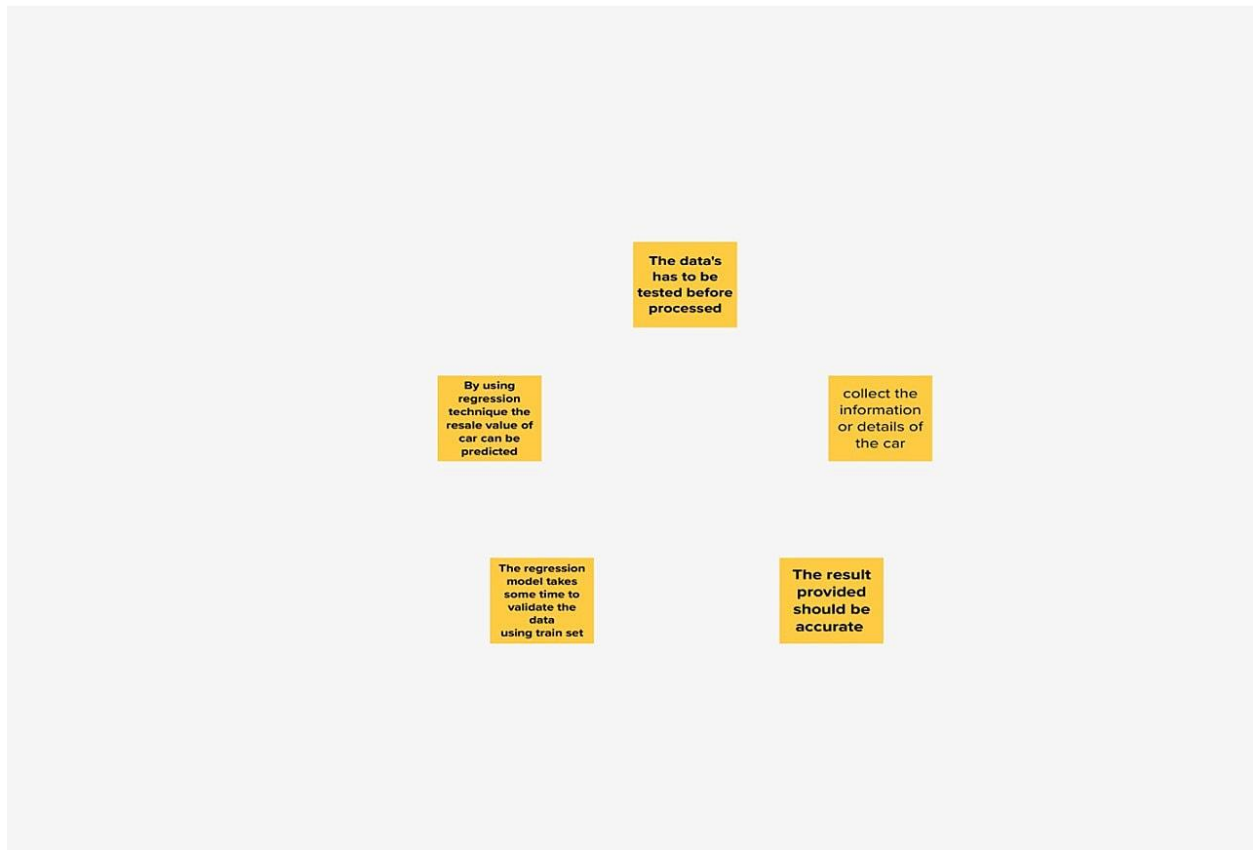
Figure 3.2.3 Group Ideas

Here the individual members propose separate idea for the project. Individual Ideas will be shared in the group. At last, all the ideas were collaborated and the process gets initiated.

④

Prioritize

Your team should all be on the same page about what's important moving
forward. Place your ideas on this grid to determine which ideas are important and
which are feasible.

⏱ 20 minutes

♡

Importance

If each of these
tasks could get
done without any
difficulty or cost,
which would have
the most positive
impact?

Feasibility

Regardless of their importance, which tasks are more
feasible than others? (Cost, time, effort, complexity, etc.)
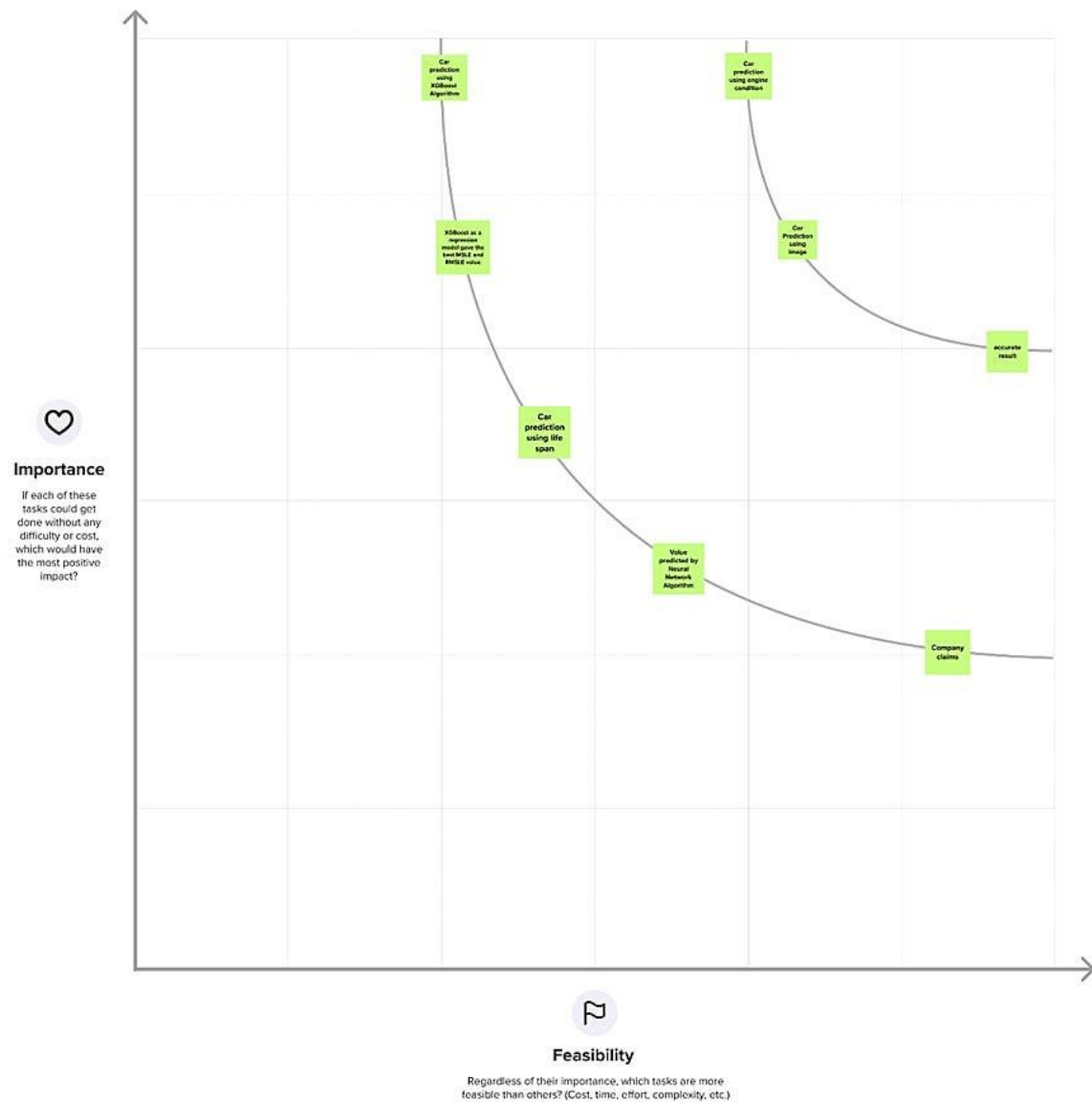
3.3 Proposed Solution:

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	To predict the value of second-hand car using Data Science
2.	Idea / Solution description	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. In order to predict the resale value of the car, we proposed an intelligent, flexible, and effective system that is based on using regression algorithms. Considering the main factors which would affect the resale value of a vehicle a regression model is to be built that would give the nearest resale value of the vehicle.
3.	Novelty / Uniqueness	We predict the car price based on the condition of car and give the detailed value of that car
4.	Social Impact / Customer Satisfaction	It will be more use full for middle class people.

5.	Business Model (Revenue Model)	We built the web application and give the whole details about the car and its spare parts and it will be more useful to search for customers. Our source of revenue is customers and our quality products
6.	Scalability of the Solution	This application predicts the appropriate value of used car.

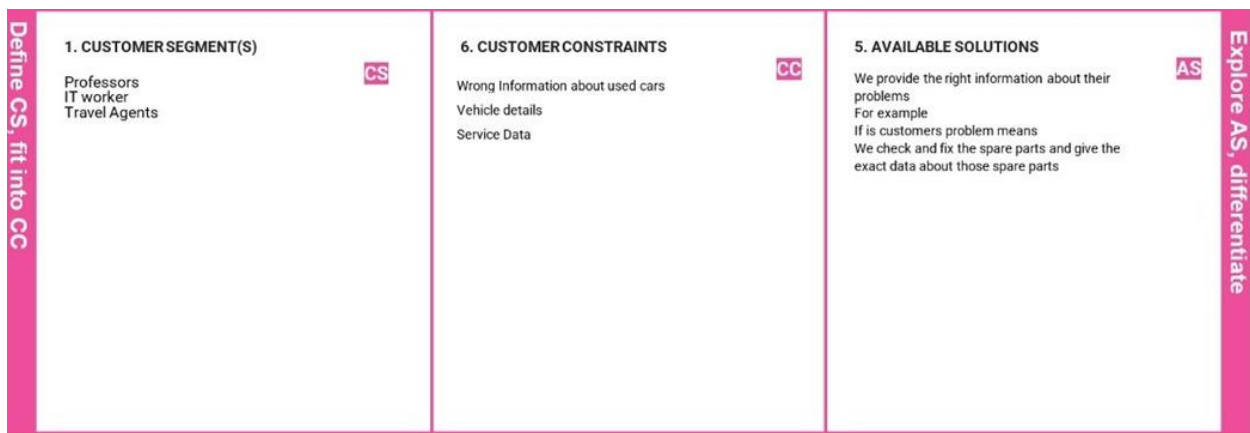## 3.4 Problem Solution Fit:

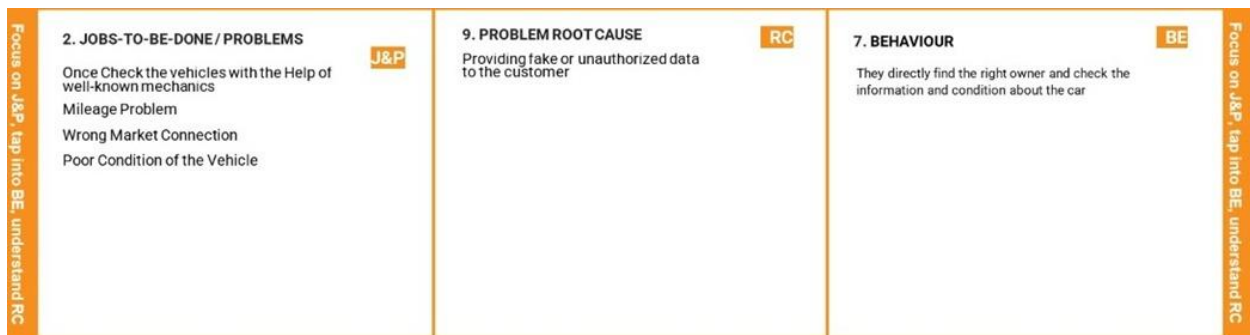**Figure 3.4.1** Define customer segment and customer constraints and available solution

Figure 3.4.2 Jobs to be done and Problem root cause and Behaviour
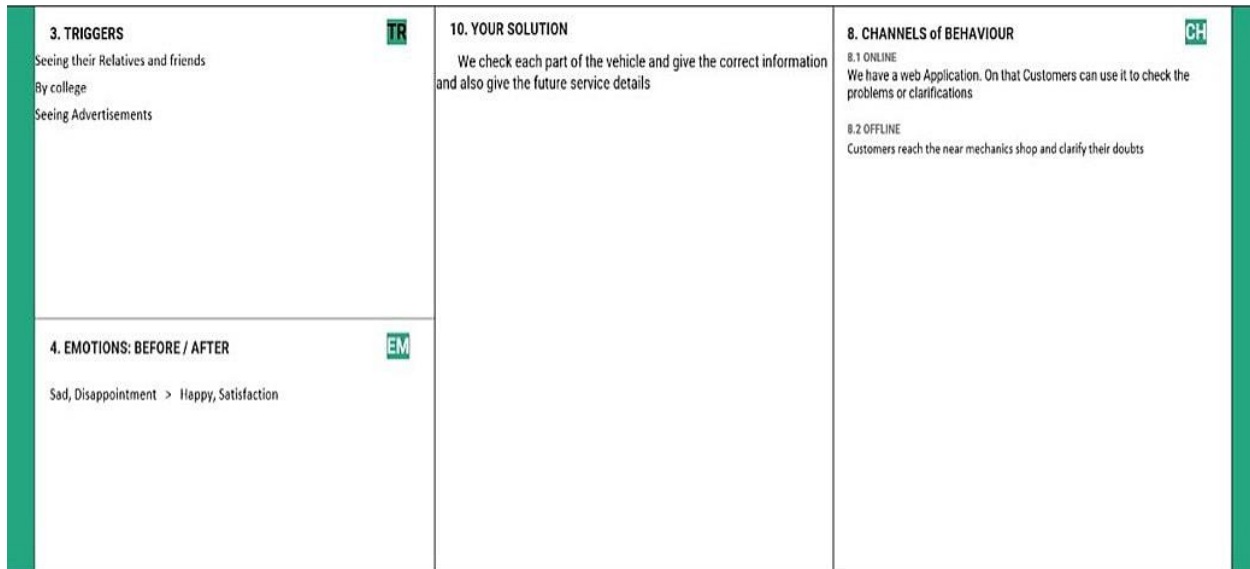
Figure 3.4.2 Triggers and Emotions and Your solution and Channels of behaviours

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioural patterns and recognize what would work.

This project explains about the customer segment that which type of people will buy this type of cars. Second, we explain about which task to be done before buying the car. Third, we discussed about the customer constraints.

Fourth, the user will directly find the right owner and check the information and condition about the car. Fifth, we have a web Application. On that Customers can use it to check the problems or clarifications. At last, we check each part of the vehicle and give the correct information and also give the future service details.

CHAPTER - 4

REQUIREMENT ANALYSIS

4.1 Non – Functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Usability testing is the process of testing your product with real users, by asking them to complete a list of tasks while noting their interactions.
NFR-2	**Security**	In Security the data are well protected by fire wall and your data are well secured
NFR-3	**Reliability**	Reliability refers to the average time that a system or software operates between downtimes or failures.
NFR-4	**Performance**	The performance determines average wait times and how long it takes for software or a page to load.
NFR-5	**Availability**	Availability is like a metric. This metric tracks time as a percentage and verifies how long a software or resource is available for users to operate.
NFR-6	**Scalability**	Scalability is the measure of a system's ability to increase or decrease in performance and cost in response to changes in application and system processing demands.

4.2 Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Gmail Registration through phone number
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Data Verification	Verification through Gmail Verification through OTP
FR-4	User Data	For Analysing their requirement and give the desired result

17

CHAPTER - 5

PROJECT DESIGN

5.1 Data Flow Diagrams:
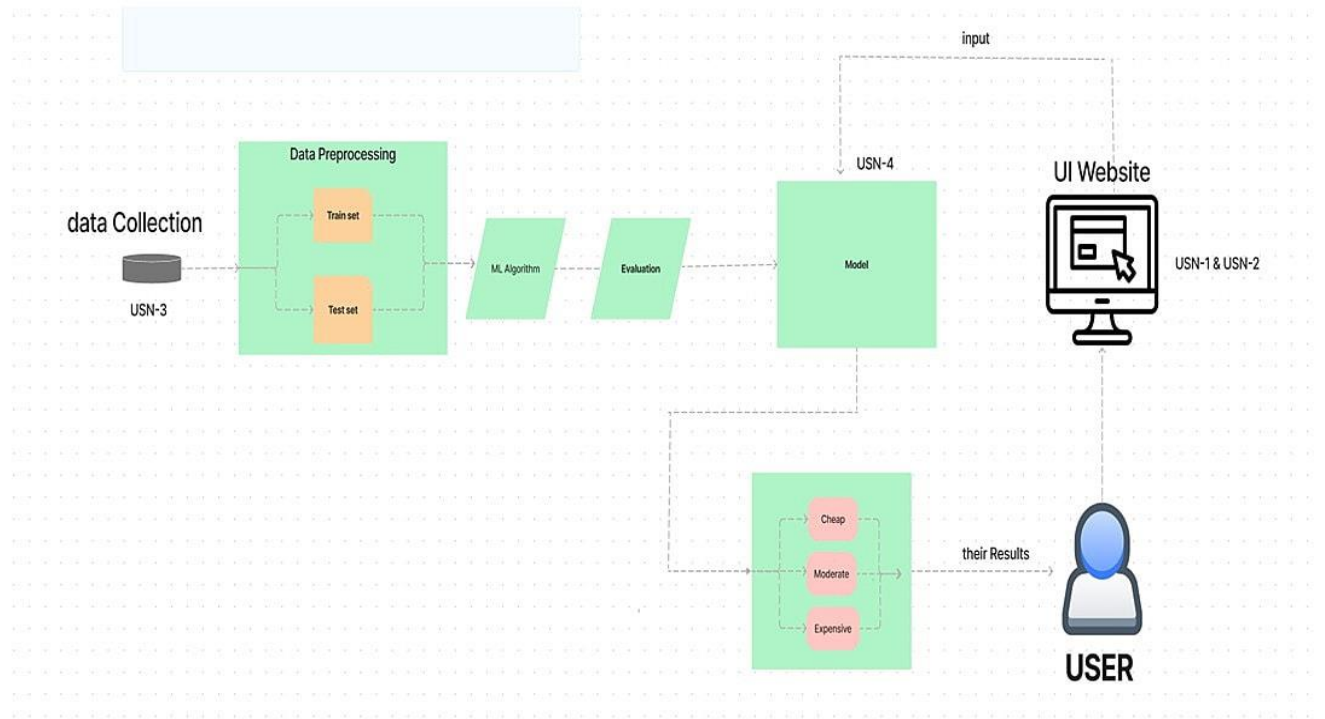
Figure 5.1.1 Data Flow diagram

A project management process flowchart is a graphical aid, designed to visualize the sequence of steps to be followed throughout the project management process. Once your process flow has been developed, it will guide the primary phases of any future projects, from start to finish.

In this first the data were collected and the data were processed using ML algorithm. Then the data send for evaluation. Then the UI Website will refer the data set and give the result with the condition of Cheap, Moderate and Expensive.

18

5.2 Solution & Technical Architecture:

Solution Architecture.

Date	9 October2022
Team ID	PNT2022TMID30244
Project Name	Project -Car Resale Value prediction
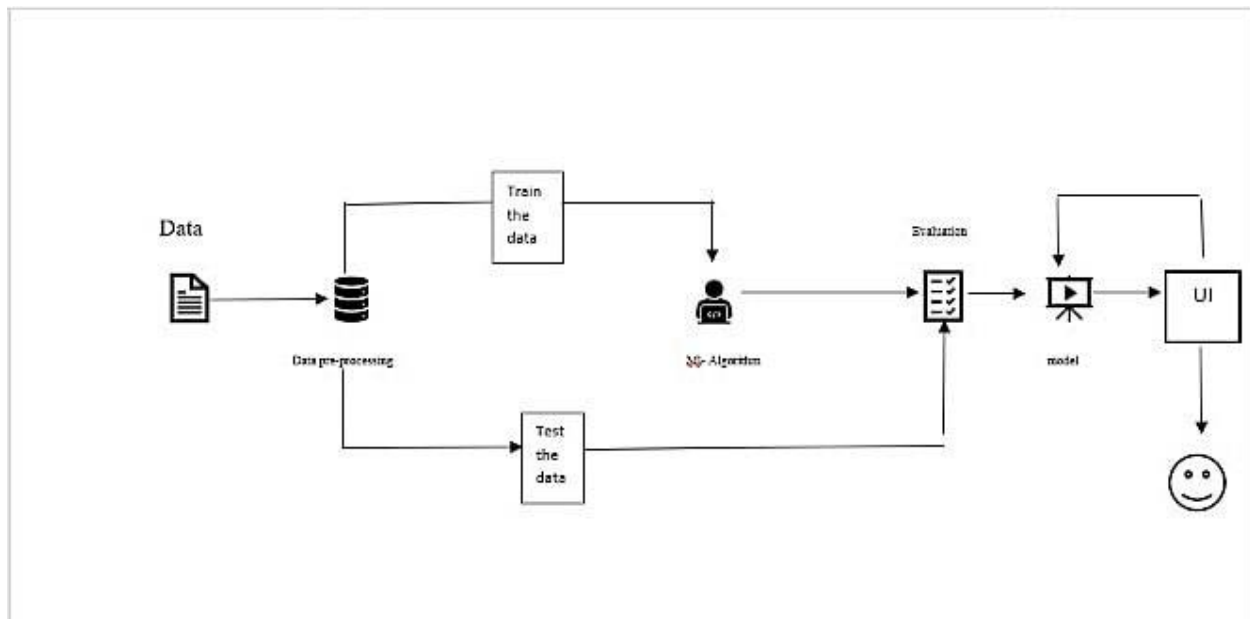
Figure 5.2.1 Solution Architecture

A solution architecture diagram may actually be a set of diagrams documenting various levels of the architecture. The diagram relates the information that you gather on the environment to both physical and logical choices for your architecture in an easily understood manner.

19

First the Data was collected from the user and the data will be pre-processed. Then the MI algorithm will be used and the UI will refer the data set. Them the result will be given to the user.

Technical Architecture.

Date	19 October 2022
Team ID	PNT2022TMID30244
Project Name	Project – Car Resale Value Prediction
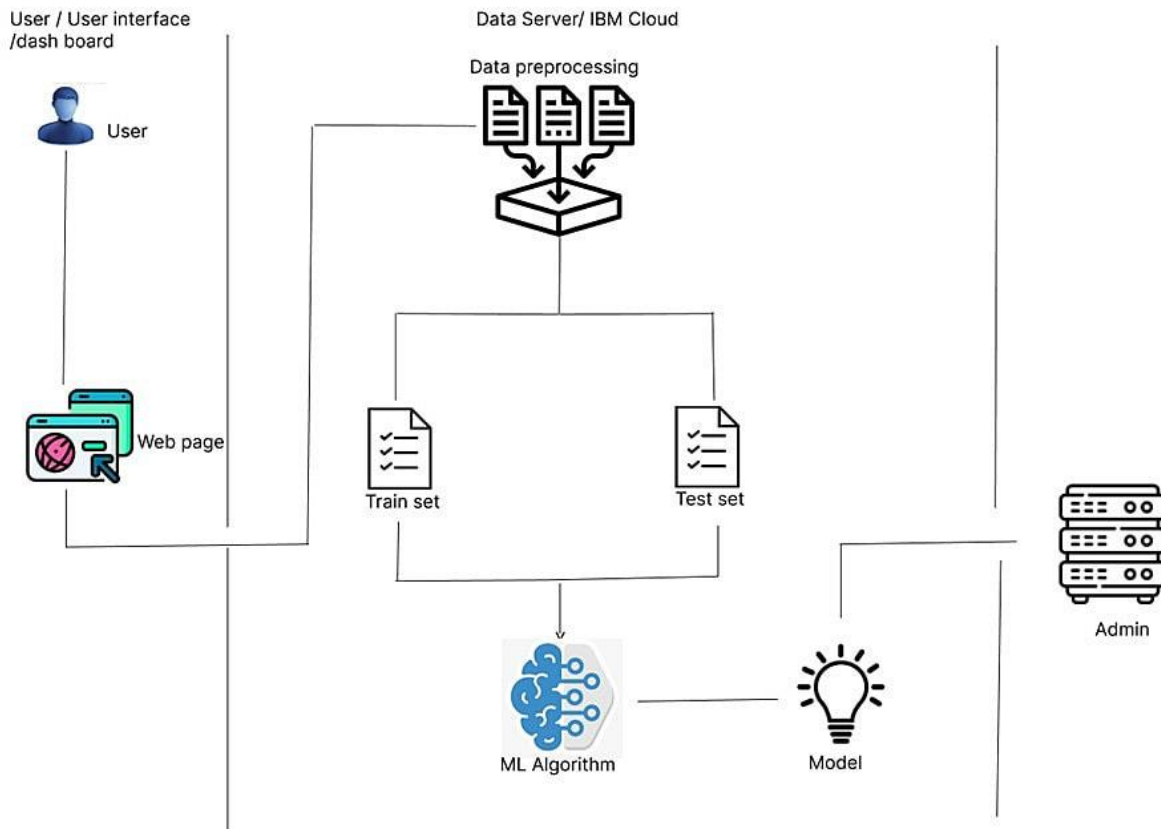
An architectural diagram is a visual representation that maps out the physical implementation for components of a software system. It shows the general structure of the software system and the associations, limitations, and boundaries between each element.

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User Access through web application	HTML, CSS, python flash
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Database	Data Type, Configurations etc.	MySQL
5.	Cloud Database	Database Service on Cloud	IBM Cloud etc.
6.	File Storage	File storage requirements	IBM Cloud Local Filesystem
7.	Machine Learning Model	Purpose of Machine Learning Model	Analysis the given data from the customer
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration:20 GB of Internal storage Cloud Server Configuration: 20 GB	Local, IBM Cloud.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Web application frame work	Technology of Opensource framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g., SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used
4.	Availability	distributed servers. Many customers can assess through our server	IBM Cloud Server
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used

5.3 User Stories:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	You can register for the application by entering my email, password or Phone Number and confirming my password or through OTP	1	High	Harrish
Sprint-1		USN-2	You will receive confirmation email once I have registered for the application	2	High	Chidambaram
Sprint-1		USN-3	You can Access our data through your registered account like Kaggle	2	Medium	Mukesh Kumar
Sprint-1		USN-4	As a user, I should give the car details -car name, car model, fuel type [petrol or decal]	10	High	Vengatesh

23

Sprint-2	User Information	USN-5	As a user, I can see the related information through the website	12	High	Harrish
Sprint-2	Data collection	USN-6	As an admin, I want to collect the data from the user	6	High	Vengatesh
Sprint-3	Data Pre-processing	USN-7	As an admin, I want to filter the data i.e. clean the data and pre-process the data using panda	10	High	Chidambaram
Sprint-3	Model Building	USN-8	As an admin, I should predict the accurate data using Machine Learning Algorithm	6	High	Vengatesh
Sprint-3	API	USN-9	As an admin, I should use python flash to connect the data and logic and ML Algorithm	5	High	Harrish
Sprint-4	Identification	USN-10	As an admin, I should give the accurate data and information from G-mail	15	High	Mukesh Kumar

24

CHAPTER – 6

PROJECT PLANNING AND SCHEDULING

6.1 Sprint Planning & Estimation:

SPRINT 1:

1. The Sprint one involves the making of Frontend (login page).

2. The login page involves both register and login form.

3. We have a database for this page (login page).

4. The login page was created using language like HTML, CSS, JAVASCRIPT and also includes PYTHON frame works like FLASK.

5. The database is stored in the IBM cloud.

SPRINT 2:

1. The second sprint involves the database storage of the user login and the dashboard page

2. The Database are stored using IBM Cloud ant data base

3. The stored database is used to store the data of the user login and dashboard page

4. We have created as database for login page like First name, Last name,

G-mail, Password

5. And created a database for dashboard page like Seller, Vehicle type, Gear box type, Fuel type, Kilometre.

6. And to connect the data in the backend we had used python programming language and also python frameworks.

SPRINT 3:

1. The Third sprint involves back-end process of the project.

2. The collected data will be pre-processed.

3. Then the MI algorithm will be used.

4. The UI will refer the data set which we have uploaded in the IBM cloud.

SPRINT 4:

1. The fourth sprint involves the Final back-end process.

2. After completing the process this program involves the backend for setting the E-Mail to notify for the User.

3. The backend was also connected by using node.js for to render web page faster and create highly dynamic web applications.

6.2 Sprint Delivery Schedule:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	You can register for the application by entering my email, password or Phone Number and confirming my password or through OTP	1	High	Harrish
Sprint-1		USN-2	You will receive confirmation email once I have registered for the application	2	High	Chidambaram
Sprint-1		USN-3	You can Access our data through your registered account like Kaggle	2	Medium	Mukesh Kumar
Sprint-1		USN-4	As a user, I should give the car details -car name, car model, fuel type [petrol or decal]	10	High	Vengatesh

Sprint-2	User Information	USN-5	As a user, I can see the related information through the website	12	High	Harrish
Sprint-2	Data collection	USN-6	As an admin, I want to collect the data from the user	6	High	Vengatesh
Sprint-3	Data Pre-processing	USN-7	As an admin, I want to filter the data i.e. clean the data and pre-process the data using panda	10	High	Chidambaram
Sprint-3	Model Building	USN-8	As an admin, I should predict the accurate data using Machine Learning Algorithm	6	High	Vengatesh
Sprint-3	API	USN-9	As an admin, I should use python flash to connect the data and logic and ML Algorithm	5	High	Harrish
Sprint-4	Identification	USN-10	As an admin, I should give the accurate data and information from G-mail	15	High	Mukesh Kumar

28

6.3 Report from JIRA:

Burndown Chart:
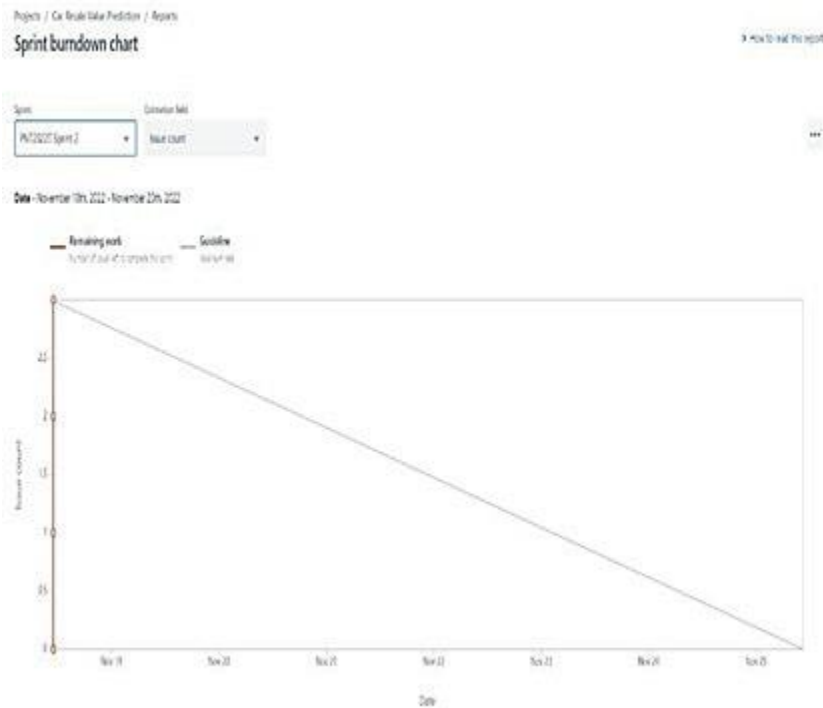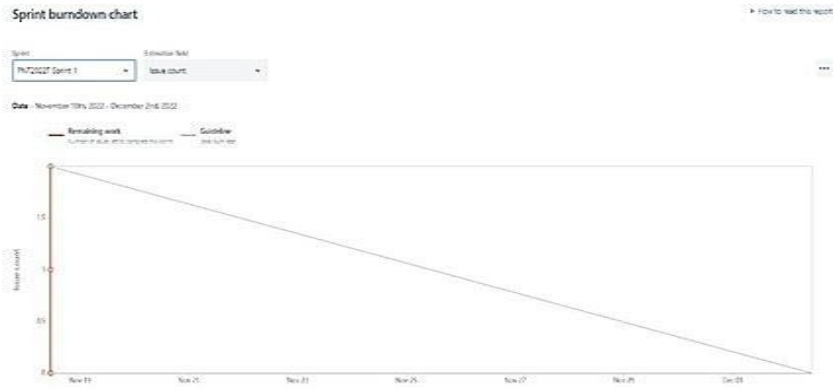
Sprint burndown chart

Sprint burndown chart

30
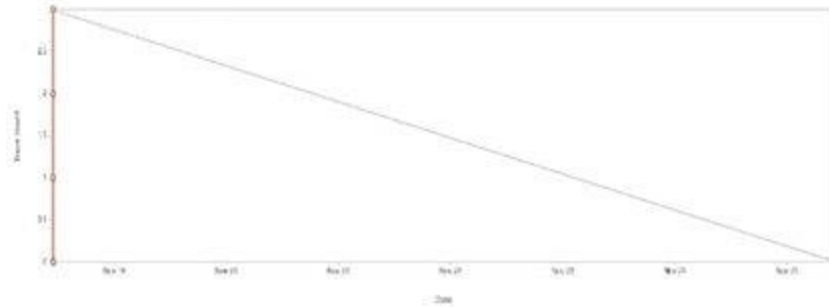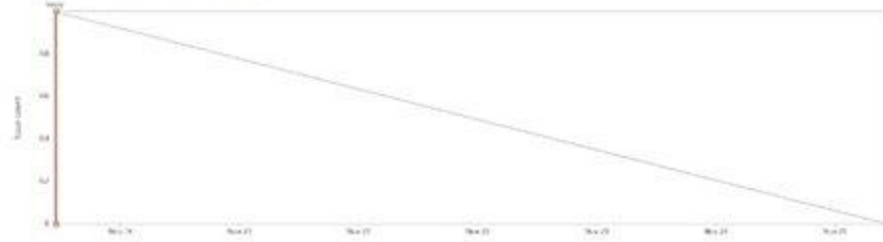
CHAPTER – 7

CODING AND SOLUTIONS

7.1 Feature 1:

You may create any app, game, or plugin using Visual Studio using the language of your choosing. Learn about the features that will increase your output, enhance the quality of your code, and increase team agility.

Features of VS Code:

Python

Virtual Platform

Code:

```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="b.css">

  <title>Document</title>
```

7.2 Feature 2:

Python 3.7 easier access to debuggers thanks to a new built-in breakpoint () With data classes, create simple classes Access to module properties that can be changed improved type hinting support enhanced timing capabilities.

Features of Python 3.7:

• The breakpoint () Built-In.

• Data Classes.

• Customization of Module Attributes.

• Typing Enhancements.

• Timing Precision.

Code:

```
mport pandas as pd

import numpy as np

from flask import Flask, render_template, Response, request

import pickle

from sklearn.preprocessing import LabelEncoder, StandardScaler

import pickle

pp = Flask(_name_)

filename = 'resale.nav'
```

CHAPTER – 8

Testing

8.1 Test Case:

Test Case 1(Properties):

Figure 8.1.1 Value details

Test case 1 refers that the user has to select the details which we gave. The user has to fill seller, offer type, kilometre the car has driven, gear box type, year registered, abset, vehicle type, fuel type of the car.

Test Case 2 (Result):

The predicted value of your car is RS 80000.1

Figure 8.1.2 Result

After filling the details of the car, the filled values will first check in the database which we give. Then it applies the MI algorithm and the result will be displayed and the result will send to the user Mail ID.

8.2 USER ACCEPTANCE TESTING:

1. Without knowing the data base of the car many customers have lost their money.

2. Many duplicate parts been changed in the. The customer has supposed to buy the car. It leads to danger.

3. On these duplicate parts change there may occur Engine fault, Break failure and etc.

34

4. Many old cars have sold for a high profit. The customers also buying without having any choice.

5. As you can see, these problems have the potential to become very danger, but happily, they can be quickly helpful with our Web-application.

CHAPTER – 9

Performance Metrics

This project is very useful for the user to predict the price of the car. First the user has to fill the details which is required. User have to fill the details of kilometre, gear box type, year of registration, vehicle type, fuel type of the car and offer type.

Then the UI will refer the data set which we have uploaded in the database. Then it will sort the dataset according to the user's dataset.

Then the MI algorithm is used to predict the value of the. This algorithm will sort the value according to the condition of expensive, moderate, low price.

After predicting the value of the car, the UI will send the value of the car to the user through mail.

CHAPTER – 10

Advantages & Disadvantages

Advantages:

1. The software can help the people to identify the data base of the car easily.

2. The software is very user-friendly, no need to installany external appby the user.

3. The single software can be used by the seller for managing multipleusers at the same place.

4. The overall stressof user and the buyer is reduced and maintained undercontrol by the software.

5. We can easily access the car details from any remote places.

Disadvantages:

1. This software can run only on smart phones, desktops and laptops.

2. When the collected data is not correct, we are unable to predict the correct value of the car.

3. Fake information of the car will lead the user to danger.

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CHAPTER – 11

CONCLUSION

In recent years, online used car trading platforms have developed rapidly, but they still face many problems. In practice, institutions and individuals differ in how they screen the characteristic variables of used car prices and predict used car prices. Under such conditions, it is easy to lead to the unsound development of the market, and it is difficult to establish a unified evaluation system, which causes great difficulties in the transaction of used cars.

This project analyses the factors affecting the price of used cars from three aspects—used car parameters, vehicle condition factors, and transaction factors and establishes a used car price evaluation system including 12 characteristic variables.

The increased prices of new cars and the financial incapability of the customers to buy them, Used Car sales are on a global increase. Therefore, there is an urgent need for a Used Car Price Prediction system which effectively determines the worthiness of the car using a variety of features. The proposed system will help to determine the accurate price of used car price prediction.

The machine learning algorithmic paradigms using prominent algorithms from libraries in python are implemented successfully. Initially, we perform pre-processing and data cleaning on our dataset and found that 15% of the tuples had null values and those tuples are pruned.

CHAPTER – 12

Future Scope:

Currently, system can only deal with some models of cars due to lack of data. Also, data has been collected of only 5 cities of India. This can be extended to multiple car models and cities so as to improve accuracy and usability.

Efficient use of deep learning such as LSTM (Long short-term memory) or RNN (Recurrent Neural networks) can be implemented once enough data is collected. This can improve accuracy and decrease RMSE drastically.

Currently, only few features are used to predict resale value of the car. This can be extended to more features. One can also implement CNN to determine physical condition of the car from images like identifying dents, scratches etc. and thus predicting more relevant resale value of a car.

As a part of future work, we aim at the variable choices over the algorithms that were used in the project. We could only explore two algorithms whereas many other algorithms which exist and might be more accurate. More specifications will be added in a system or providing more accuracy in terms of price in the system i.e. 1) Horsepower   3) Suspension   5) Torque

    2) Battery power   4) Cylinder

As we know technologies are improving day by day and there is also advancement in car technology also, so our next upgrade will include hybrid cars, electric cars, and Driverless cars.

CHAPTER – 13

Appendix

13.1 Source Code:

```html
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <title>Title</title>

</head>

<body>

{%if flag%}

    <h1 style="align-items:center">The predicted value of your car is  RS
{{y_prd}}</h1>

    {% endif %}

</body>

</html>
```

```python
app = Flask(_name_)

filename = 'resale.nav'
```

```
model_rand = pickle.load(open(filename, 'rb'))

ss = StandardScaler()

@app.route('/')

def index():

    return render_template('secpage.html')



seller = request.form['seller']

    offer_type = request.form['offerType']

    kms = request.form['kms']

    gearbox = request.form['gearbox']

    absets = request.form['abset']

    vehicle_type = request.form['model']

    fueltype = request.form['fuel']
```

```html
<select style="padding: 10px 10px;" type="text" name="kms" id="km"
placeholder="">

        <option value="5000">5000</option>

        <option value="6000">6000</option>

        <option value="7000">7000</option>
```

41

```
<option value="8000">8000</option>

<option value="9000">9000</option>

<option value="10000">10000</option>

<option value="20000">20000</option>

<option value="21000">21000</option>

<option value="22000">22000</option>

<option value="23000">23000</option>

<option value="24000">24000</option>

<option value="25000">25000</option>

<option value="26000">26000</option>

<option value="27000">27000</option>

<option value="28000">28000</option>

<option value="80000">80000</option>

<option value="150000">150000</option>

<option value="125000">125000</option>

<option value="200000">200000</option>

<option value="300000">300000</option>

<option value="400000">400000</option>
```

```
<label><b>Abset:&nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp
&nbsp &nbsp &nbsp&nbsp &nbsp &nbsp &nbsp &nbsp&nbsp &nbsp
&nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp </b></label>

        <select style="padding:10px 10px;" type="'text" name="abset" id="abs"
placeholder="">

            <option value="1">control</option>

            <option value="0">test</option>

/label>

        <select style="padding:10px 10px;" type="text" name="fuel" id="fue"
placeholder="">

</select>

<label><b>Year of Registration :&nbsp &nbsp &nbsp &nbsp &nbsp &nbsp
&nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp  </b>

        </label>

        <br>

        <br>

        <input style="padding: 8px 8px;background-color: rgb(2, 108, 127); color:
white;" type="submit"  name="log" id="log" value="Predict">

        <br>

        <br>

    </form>
```

43

```
    </div>

</body>

</html>

<label><b>Abset:&nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp
&nbsp &nbsp &nbsp &nbsp&nbsp &nbsp &nbsp &nbsp &nbsp&nbsp &nbsp
&nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp </b></label>

        <select style="padding:10px 10px;" type="'text" name="abset" id="abs"
placeholder="">

            <option value="1">control</option>

            <option value="0">test</option>

        </select>

        <br>

        <br>

        <label><b>Vehicle Type:&nbsp &nbsp &nbsp&nbsp &nbsp &nbsp &nbsp
&nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp &nbsp
&nbsp &nbsp &nbsp   </b>

        </label>

        <select style="padding:10px 10px;" type="text" name="model"
id="mod"placeholder="">

            <option value="0">andere</option>

            <option value="1">bus</option>
```

44

<option value="2">kleinwagen</option>

<option value="3">limousine</option>

<option value="4">kombi</option>

<option value="5">cabrio</option>

<option value="6">suv</option>

<option value="7">cope</option>

</select>

13.2 GitHub & Project Demo Link

Content	Link
GitHub	https://github.com/IBM-EPBL/IBM-Project-13812-1659531811
Project DemonstrationVideo	https://www.youtube.com/watch?v=KEljLyNGkyI&ab_channel=DepartmentofEC EKIOT

Table 13.2. GitHub & Project Demo Link

45

CHAPTER – 14

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