

# 1.INTRODUCTION

## 1.1 Overview

Determining whether the listed price of a used vehicle is vast, due to many factors affecting the used vehicle's price on the market. The focus of this project is developing machine learning models that can accurately predict the price of a used vehicle based on its features, in order to make informed purchases. Our application predicts the values of used vehicles using Machine Learning techniques integrating it into the flask application.

## 1.2 Purpose

The main idea of this project is to build a model that determines if the asking price of a particular vehicle is reasonable, given the information provided in the listing and to analyze, predict the price of a vehicle in relation to all the info. posted.

# 2.LITERATURE SURVEY

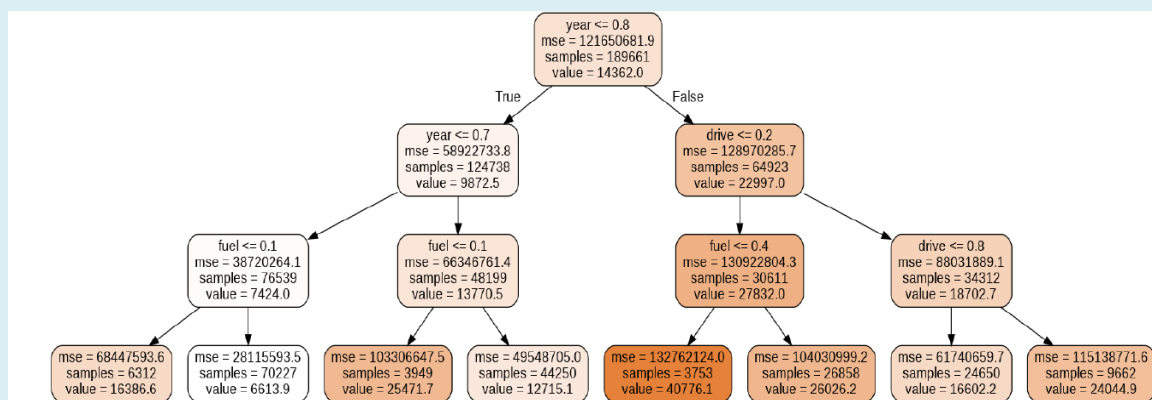
## 2.1 Existing Problem

New vehicles are said to lose up to 20 percent of their value as soon as you drive off the lot, so, we prepared a model for the customers to find the price of used vehicles depending on their vehicle type, brand, fuel, kms, mileage etc.

## 2.2 Proposed Solution

This model takes required data from the listings as inputs and predicts the value and displays it to the user

# 3 THEORETICAL ANALYSIS



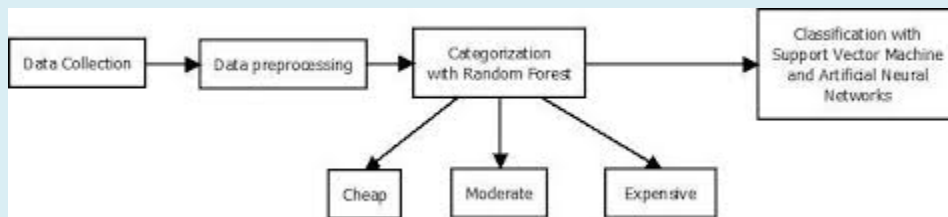
### 3.2 Hardware/Software designing

- ★ Strategy : matching the problem with the solution.
- ★ Dataset inspection and data collection.
- ★ Data visualization and Data Preprocessing.
- ★ Label Encoding , Feature scaling .
- ★ Data splitting into train and test data.
- ★ Model building by training , evaluation and testing and prediction methods.
- ★ Model deploying (IBM Cloud flask)

## 4.EXPERIMENTAL INVESTIGATION

We got to know about the various required parameters to select , analyze ,test and predict the re-sale value of the vehicle.

## 5. FLOWCHART



## 6. RESULT

Based on all the inputs of the user , the model predicts the vehicle's resale value

The screenshot shows a web application interface for predicting used vehicle prices. The page has a teal header with the word 'Home'. Below the header, there is a form titled 'Predict used vehicle price'. The form contains several input fields with labels and values: 'date' (31/03/2016), 'name' (Blade), 'type' (Privat), 'address' (Angkor), 'area' (test), 'vehicle' (Mercedes), 'year' (2008), 'gear' (Manuell), 'price' (69), 'model' (fabia), 'mileage' (90000), 'number' (7), and 'location' (Korea).

## **7.ADVANTAGES AND DISADVANTAGES :**

Advantages : Predictions of rates on finger tips .

Minimum user information required to predict the values.

Quick results , no buffer time

User friendly.

Disadvantages :

The main disadvantage of this model is the limited amount of data which is (present only in the dataset.)

We need to keep updating it if we intend to collect more data and use more advanced techniques.

Car price prediction can be a challenging task as sometimes the predictions might not always be 100% accurate.

## **8.APPLICATIONS**

Used to check resale values of any vehicle.

Used to compare values with other brands and models.

## **9. CONCLUSION**

Vehicle resale price prediction can be a tedious project and the major step in the prediction process is preprocessing of the data using ML techniques.

## **10. FUTURE SCOPE :**

This model can be used to reduce the hectic process of moving around stores, places to find prices , it will help in checking the budget earlier .

## **BIBLIOGRAPHY APPENDIX:**

<https://www.kaggle.com/jaisanant/automobile>

Jupyter Notebook

Flask

IBM Cloud Services

