1.INTRODUCTION

1.1 Overview

With difficult economic conditions, it is likely that sales of second-hand imported cars and used cars will increase. 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. To calculate the value/price an Application is been built using various services.

1.2 Purpose

Considering the main factors which would affect the resale value of a vehicle a regression model is built that would give the nearest resale value/price of the vehicle. The main factors are the time in which vehicle got registered, numberof kms it drove, power, type of gear box, model of the car, any damage orrepair, fuel type etc. and the model processing is been done in Auto AI services  
in IBM cloud and then the deployment is been done in Watson studio and application is build using Nodered service.

2.LITERATURE SURVEY

2.1 Existing Problem

With the developing world a wide range of data is been collected .Such a large increase of data has a lot of impact on every one’s life. It is so difficult for human to understand ,analyse and choose the best of all the data avaliable.

Considering the instance of the project we know that to predict the price of any vehicle via considering all the required factors out of avaliable n vehicles is difficult.

2.2 Proposed Solution

To solve the problem and make it easy and human friendly in a well-formatted way, we use IBM Cloud.I have used Machine Learning Service ,IBM Watson Auto AI Service. The model is deployed on IBM cloud to get value of a particular vehicle which can be used as API in mobile application or web application building. We are developing the web application by using nodered service.

3.THEORETICAL ANALYSIS

3.1 Block diagram



3.2 Hardware / Software Designing

The project has been done by using IBM Cloud in which machine learning service, Watson studio and cloud storage service (to store the data) have been created by using the options available in Catlog.

4.EXPERIMENTAL INVESTIGATION

The project depends on the following parameters

1.DateCrawled

2.Name

3.SellerOfferType

4.Abtest

5.Vehicle

6.TypeYearOfRegistration

7.Gearbox

8.PowerPS

9.Model

10..Kilometer

11.MonthOfRegistration

12.FuelType

13.Brand

14.NotRepairedDamage

15.DateCreated

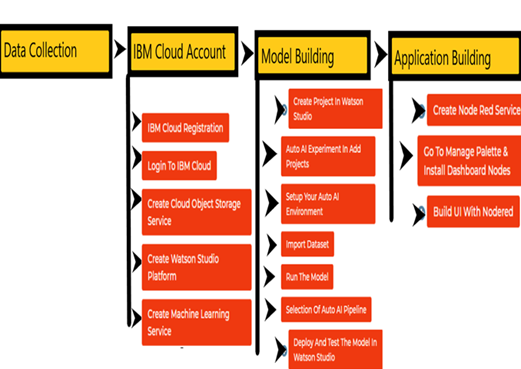
16..NrOfPictures

17.PostalCode

18.LastSeen

All the data has been collected considering the above factors and it has been formatted . After formatting it has been uploaded in the project and after that using Watson Studio Auto AI Experiment, it is uploaded to cloud object storage service and implemented. Based on these implementation, the value can be predicted using the data we have collected . After that application is developed using Nodered Service.

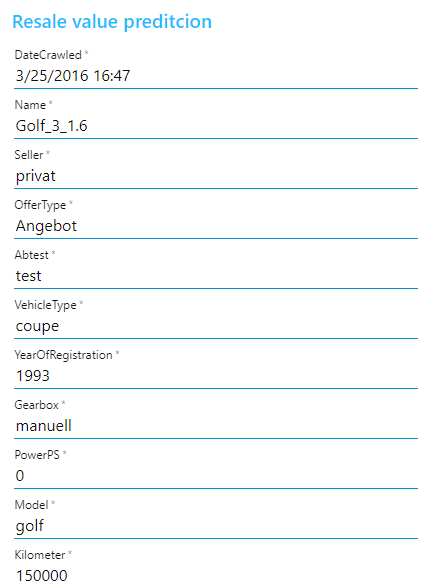
5. FLOW CHART

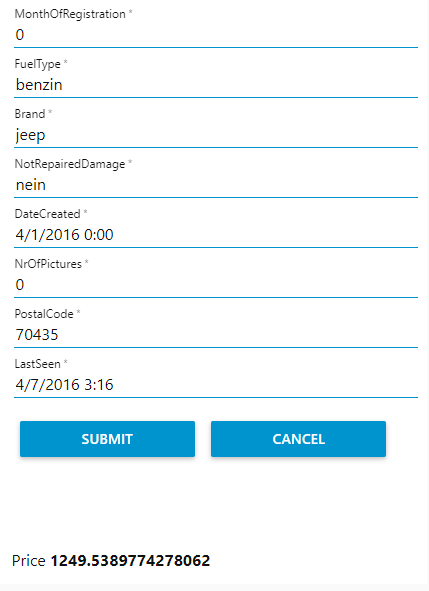


6.RESULT

After the implementation, deployment of project the result i.e. predicted price of vehicle can be seen in Node Red UI. This value depends on different parameters. The Node Red UI provide us simple way to get the result of Auto AI Experiment.

Here is the Node Red UI predicts the price of the vehicle.





7.ADVANTAGES & DISADVANTAGES

The advantages are easy to implement , accessibility is fast, we can handle multi-dimensional and multi-variety data.Where as the disadvantages are lack of security, loss of control on data ,dependence of network/providers.

8.APPLICATION

Using The Auto AI Experiment,one can build and deploy a machine learning model with sophisticated training features . In the given project we can predict the price of the required vehicle by giving few input parameters.

9.CONCLUSION

In this project by using IBM Cloud the model processing is been done in Auto AI services in IBM cloud and then the deployment is been done in Watson studio and application is build using Nodered service which has been successful as we are able to get the desired output.

10.FUTURE SCOPE

As we are developing day to day there is a continuous growth of Auto AI and Machine Learning.The web application can be used to predict the price of the vehicle accurately and efficiently instead of n number of people being involved directly or indirectly .

11. BIBLIOGRAPH

APPENDIX

A. Source Code

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