RINEX PROJECT REPORT

***SELF INTRODUCTION:***

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YEAR: IV TH YEAR

1.MAJOR PROJECT - I

Choose any dataset of your choice and apply a suitable ML technique and if possible deploy it using Heroku and Streamlit(COMPULSORY).

GIT HUB LINK:

<https://github.com/harine12/RINEX-MAJOR-PROJECT-1.git>

HEROKU APP LINK:

<https://rinex4mayharine.herokuapp.com/>

SOURCE CODE:

MODEL:

import pandas as pd

df = pd.read\_csv('https://raw.githubusercontent.com/harine12/RINEX-MAJOR-PROJECT-1/main/ford.csv')

df

df.info

df.shape

#DATA CLEANING

df\_numeric = df.select\_dtypes(include = ['float64','int64'])

df\_numeric

df\_numeric.info

#divide the data into input and output

#input - All the columns except price

#output - price column

x = df\_numeric.loc[:, df\_numeric.columns != 'price'].values

x

y = df\_numeric.loc[:, 'price'].values

y

#TRAIN AND TEST VARIABLES

from sklearn.model\_selection import train\_test\_split

x\_train,x\_test,y\_train,y\_test = train\_test\_split(x,y,random\_state = 0)

print(x.shape)

print(x\_train.shape)

print(x\_test.shape)

print(y.shape)

print(y\_train.shape)

print(y\_test.shape)

#APPLY LINEAR REGRESSOR

from sklearn.linear\_model import LinearRegression

model = LinearRegression()

#FITTING THE MODEL

model.fit(x\_train,y\_train)

#PREDICTING THE OUTPUT

y\_pred = model.predict(x\_test)

y\_pred

y\_test # actual output

print(y\_train[10])

model.predict([x\_train[10]])

from sklearn.metrics import r2\_score

r2\_score(y\_test,y\_pred)

import joblib

joblib.dump(model, 'Linear regression model')

APP.PY:

import streamlit as st

import joblib

import pandas

model = joblib.load('Linear regression model')

st.title('LINEAR REGRESSION MODEL FOR PRICE OF USED CARS')

year = st.number\_input("year", min\_value=1996, max\_value=2060)

mileage = st.number\_input("mileage", min\_value=1, max\_value=200000)

tax = st.number\_input("tax in euros", min\_value=0, max\_value=600)

mpg = st.number\_input("miles per gallon", min\_value=10, max\_value=203)

engineSize = st.number\_input("Engine size in litres", min\_value=1.0, max\_value=5.0, step=1., format="%.2f")

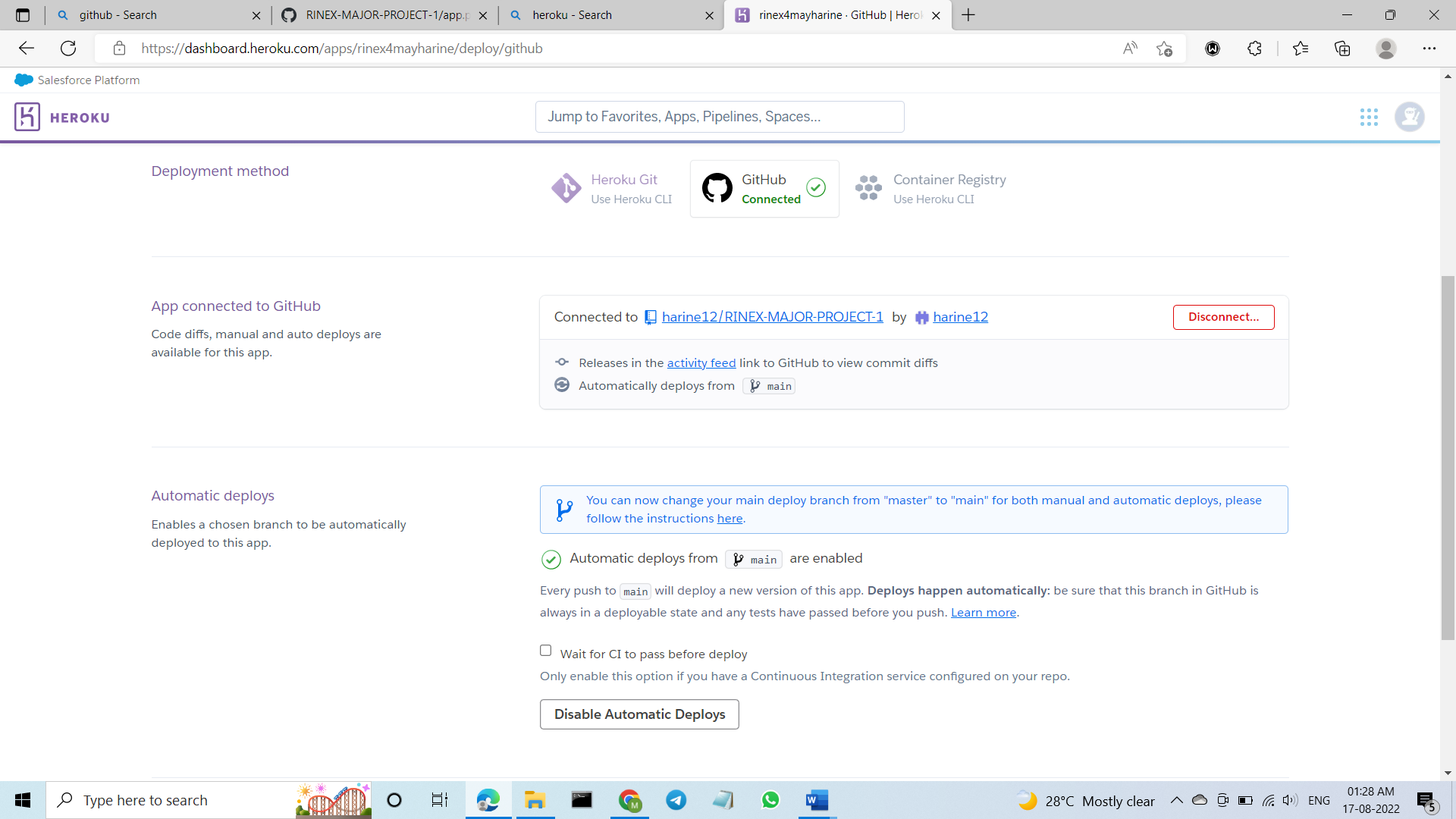
input\_data = [[year, mileage, tax, mpg, engineSize]]

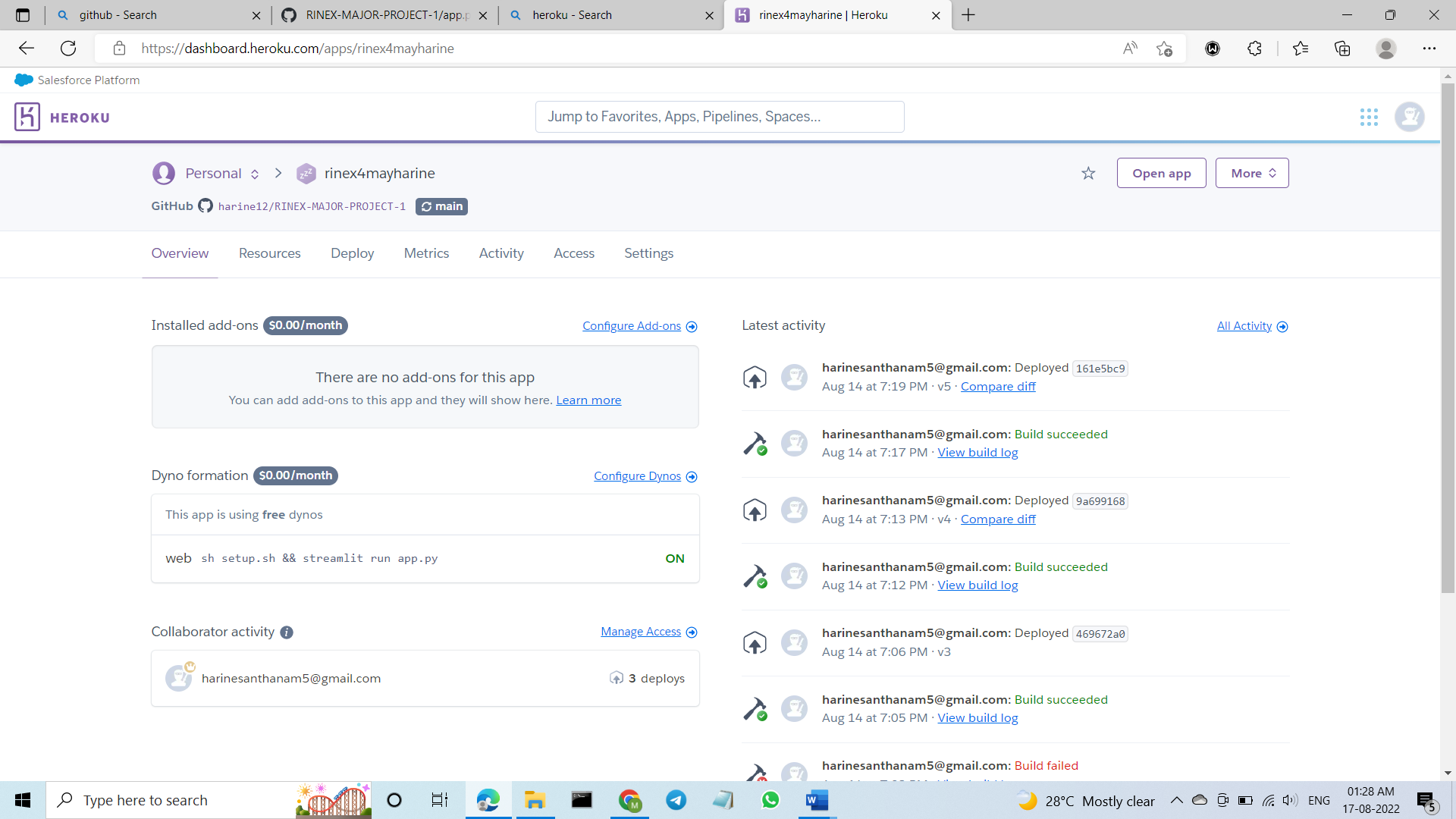
pred = model.predict(input\_data)

if st.button('Predict car price (in euros)'):

st.subheader(pred)

HEROKU SCREENSHOTS:





2. MAJOR PROJECT – II:

(a).Take any dataset and perform Exploratory Data Analysis(EDA)

EDA should be done for atleast 15 different parameters/Analysis

GIT HUB LINK:

<https://github.com/harine12/RINEX-MAJOR-PROJECT-2.git>

THANK YOU