# -\*- coding: utf-8 -\*-

"""

Created on Tue Oct 12 07:48:58 2021

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#https://raw.githubusercontent.com/Shreyas3108/house-price-prediction/master/kc\_house\_data.csv

#https://www.youtube.com/watch?v=\_dzr1pm3Ymw

import streamlit as st

import pandas as pd

import numpy as np

import seaborn as sns

import plotly.express as px

import matplotlib.pyplot as plt

from sklearn.linear\_model import LinearRegression,Lasso,Ridge

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

from sklearn.metrics import r2\_score

st.title(':house: DreamHomes.com :house:')

st.text('Best Home at Cheapest Prices. Best Price predictor website for homes')

df=pd.read\_csv('kc\_house\_data.csv')

st.image('house.jpg')

st.video('https://www.youtube.com/watch?v=\_dzr1pm3Ymw')

price\_set=st.slider("Price Range",min\_value=int(df['price'].min()),max\_value=int(df['price'].max()),step=50,value=int(df['price'].max()))

st.text("Price Selected is "+str(price\_set))

fig=px.scatter\_mapbox(df.loc[df['price']<price\_set],lat='lat',lon='long',color='sqft\_living',size='price')

fig.update\_layout(mapbox\_style='open-street-map')

st.plotly\_chart(fig)

st.header("Price Predictor")

sel\_box\_var=st.selectbox("Select Method",['Linear','Ridge','Lasso'],index=0)

multi\_var=st.multiselect("Select Additional Variables for Accuracy=",['sqft\_living','sqft\_lot','sqft\_basement'])

df\_new=[]

df\_new=df[multi\_var]

if sel\_box\_var=='Linear':

df\_new['bedrooms']=df['bedrooms']

df\_new['bathrooms']=df['bathrooms']

X=df\_new

Y=df['price']

model=LinearRegression()

X\_train,X\_test,Y\_train,Y\_test=train\_test\_split(X,Y,test\_size=0.2)

reg=model.fit(X\_train,Y\_train)

Y\_pred = reg.predict(X\_test)

st.text("Intercept="+str(reg.intercept\_))

st.text("Coefficient="+str(reg.coef\_))

st.text("R^2="+str(r2\_score(Y\_test,Y\_pred)))

elif sel\_box\_var=='Lasso':

df\_new['bedrooms']=df['bedrooms']

df\_new['bathrooms']=df['bathrooms']

X=df\_new

Y=df['price']

model=Lasso()

X\_train,X\_test,Y\_train,Y\_test=train\_test\_split(X,Y,test\_size=0.2)

reg=model.fit(X\_train,Y\_train)

Y\_pred = reg.predict(X\_test)

st.text("Intercept="+str(reg.intercept\_))

st.text("Coefficient="+str(reg.coef\_))

st.text("R^2="+str(r2\_score(Y\_test,Y\_pred)))

else:

df\_new['bedrooms']=df['bedrooms']

df\_new['bathrooms']=df['bathrooms']

X=df\_new

Y=df['price']

model=Ridge()

X\_train,X\_test,Y\_train,Y\_test=train\_test\_split(X,Y,test\_size=0.2)

reg=model.fit(X\_train,Y\_train)

Y\_pred = reg.predict(X\_test)

st.text("Intercept="+str(reg.intercept\_))

st.text("Coefficient="+str(reg.coef\_))

st.text("R^2="+str(r2\_score(Y\_test,Y\_pred)))

st.set\_option('deprecation.showPyplotGlobalUse',False)

#sns.regplot(Y\_test,Y\_pred)

#st.pyplot()

count=0

pred\_val=0

for i in df\_new.keys():

try:

val=st.text\_input("Enter no./val of "+i)

pred\_val=pred\_val+float(val)\*reg.coef\_[count]

count=count+1

except:

pass

st.text('Predicted Prices are:'+str(pred\_val+reg.intercept\_))

st.header("Application Details")

img=st.file\_uploader("Upload Application")

st.text("Details for the representative to contact you")

st.text("Enter your address")

address=st.text\_area("Your address Here")

date=st.date\_input("Enter a date")

time=st.time\_input("Enter the time")

if st.checkbox("I confirm the date and time",value=False):

st.write("Thanks for confirming")

st.number\_input("Rate our site",min\_value=1.0,max\_value=10.0,step=1.0)