**Stock Price Prediction Code:**

#Importing Libraries

import numpy as np

import pandas as pd

import math

import matplotlib.pyplot as plt

#Reading Dataset

data=pd.read\_csv(r"C:\Users\kcrkr\Desktop\Data Science(Corizo)\Minor\_Project(Stock\_Price\_Prediction)\Stock\_Price\_data\_set.csv")

data.head()

#Checking Data Info

data.info()

#Checking Graph Between Date and Close for given dataset

data.plot(x='Date',y='Close',figsize=(16,8))

#Selecting only Close column from data and reading taking 80% as length to train

data1=data.filter(['Close'])

print(data1)

dataset=data1.values

train\_data\_len=math.ceil(len(dataset)\*.8)

#Taking train data and appending into x\_train and y\_train list

train\_data=dataset[0:train\_data\_len,:]

x\_train=[]

y\_train=[]

for i in range(60,train\_data\_len):

x\_train.append(train\_data[i-60:i,0])

y\_train.append(train\_data[i,0])

#Converting to array

x\_train,y\_train=np.array(x\_train),np.array(y\_train)

#Taking test data and appending into x\_test list

test\_data=dataset[train\_data\_len-60:,:]

x\_test=[]

y\_test=dataset[train\_data\_len:,:]

for i in range(60,len(test\_data)):

x\_test.append(test\_data[i-60:i,0])

#Converting to array

x\_test=np.array(x\_test)

#Creating a model and predicting values

model=LinearRegression()

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

y\_pred=model.predict(x\_test)

y\_pred=np.array(y\_pred)

#Taking values into different variables to plot graph

train=data[:train\_data\_len]

valid=data[train\_data\_len:]

valid['Pred']=y\_pred

#Plotting 3 graphs for trained values,actual values,predicted values

train.plot(x='Date',y='Close',figsize=(16,5),title="Trained Values(2018-2021)",color='blue')

valid.plot(x='Date',y='Close',figsize=(16,5),title="Actual Value(2021-2022)",color='orange')

valid.plot(x='Date',y='Pred',figsize=(16,5),title="Predicted Values(2021-2022)",color='red')

**Output Graphs:**

