


```
In [2]: import requests
import io
url = r"https://github.com/IBM-EPBL/IBM-Project-51631-1660981089/blob/main/Data%20Collection/DataSet1986-2018.xlsx?raw=true"
download = requests.get(url).content
data = pd.read_excel(url, index_col=0, parse_dates=[0])
print(data.head())
```

In []:

```
Out[3]: 0      25.56
        1      26.00
        2      26.53
        3      25.85
```

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```
Epoch 46/50
84/84 [=====] - 2s 23ms/step - loss: 3.4001e-05 - val_loss: 2.6968e-04
Epoch 47/50
84/84 [=====] - 2s 22ms/step - loss: 3.4592e-05 - val_loss: 1.7715e-04
Epoch 48/50
84/84 [=====] - 2s 22ms/step - loss: 3.3595e-05 - val_loss: 2.7950e-04
Epoch 49/50
84/84 [=====] - 2s 20ms/step - loss: 3.5273e-05 - val_loss: 2.0697e-04
Epoch 50/50
84/84 [=====] - 2s 20ms/step - loss: 3.1876e-05 - val_loss: 2.3638e-04
```

Out[13]: <keras.callbacks.History at 0x7f9bf04a48b0>

```
In [14]: train_predict = model.predict(X_train)
test_predict = model.predict(X_test)
train_predict = scaler.inverse_transform(train_predict)
test_predict = scaler.inverse_transform(test_predict)

import math
from sklearn.metrics import mean_squared_error
math.sqrt(mean_squared_error(y_train, train_predict))
```

Out[14]: 29.19907846981903

```
In [15]: from tensorflow.keras.models import load_model
model.save("crude_oil.h5")
```

```
In [16]: look_back=10
trainpredictPlot = np.empty_like(data_oil)
trainpredictPlot[:, :] = np.nan
trainpredictPlot[look_back:len(train_predict)+look_back, :] = train_predict

testPredictPlot = np.empty_like(data_oil)
testPredictPlot[:, :] = np.nan
```

dinesh-20221125....zip

Show all

