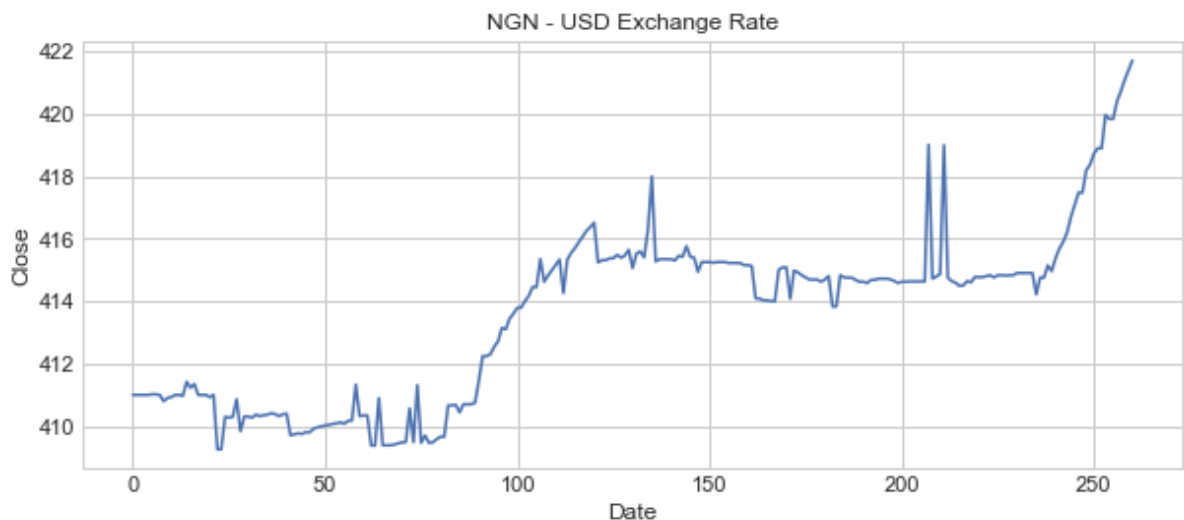


```
In [3]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from seaborn import regression
sns.set()
plt.style.use('seaborn-whitegrid')

data = pd.read_csv("NGN=X.csv")
print(data.head())
```

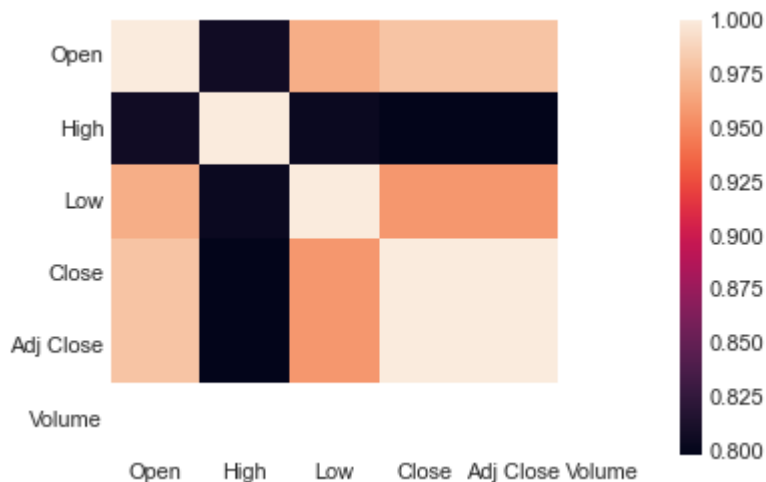
	Date	Open	High	Low	Close	Adj Close	Volume
0	2021-08-30	411.0	411.510010	409.640015	411.0	411.0	0
1	2021-08-31	411.0	411.500000	409.000000	411.0	411.0	0
2	2021-09-01	411.0	411.529999	410.070007	411.0	411.0	0
3	2021-09-02	411.0	411.600006	410.660004	411.0	411.0	0
4	2021-09-03	411.0	411.390015	410.549988	411.0	411.0	0

```
In [4]: plt.figure(figsize=(10, 4))
plt.title("NGN - USD Exchange Rate")
plt.xlabel("Date")
plt.ylabel("Close")
plt.plot(data["Close"])
plt.show()
```



```
In [5]: print(data.corr())
sns.heatmap(data.corr())
plt.show()
```

	Open	High	Low	Close	Adj Close	Volume
Open	1.000000	0.806529	0.967942	0.978974	0.978974	NaN
High	0.806529	1.000000	0.803402	0.797507	0.797507	NaN
Low	0.967942	0.803402	1.000000	0.956746	0.956746	NaN
Close	0.978974	0.797507	0.956746	1.000000	1.000000	NaN
Adj Close	0.978974	0.797507	0.956746	1.000000	1.000000	NaN
Volume	NaN	NaN	NaN	NaN	NaN	NaN



```
In [7]: x = data[["Open", "High", "Low"]]
y = data["Close"]
x = x.to_numpy()
y = y.to_numpy()
y = y.reshape(-1, 1)
```

```
In [8]: from sklearn.model_selection import train_test_split
xtrain, xtest, ytrain, ytest = train_test_split(x, y, test_size=0.2, random_

from sklearn.tree import DecisionTreeRegressor
model = DecisionTreeRegressor()
model.fit(xtrain, ytrain)
ypred = model.predict(xtest)
```

```
In [9]: data = pd.DataFrame(data={"Predicted Rate": ypred.flatten()})
print(data.head())
```

```

    Predicted Rate
0      410.309998
1      415.420013
2      415.079987
3      409.410004
4      415.149994
```

```
In [ ]:
```