week2

January 30, 2024

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1.1 CSE - P

1.2 AP21110011026

[24]:
```
import pandas as pd
import seaborn as sns
import numpy as np
import matplotlib.pyplot as plt
```

[3]:
```
iris = pd.read_csv(r"C:\Users\tiwar\Downloads\archive (1)\BBCA.JK_monthly new.
↪csv")
```

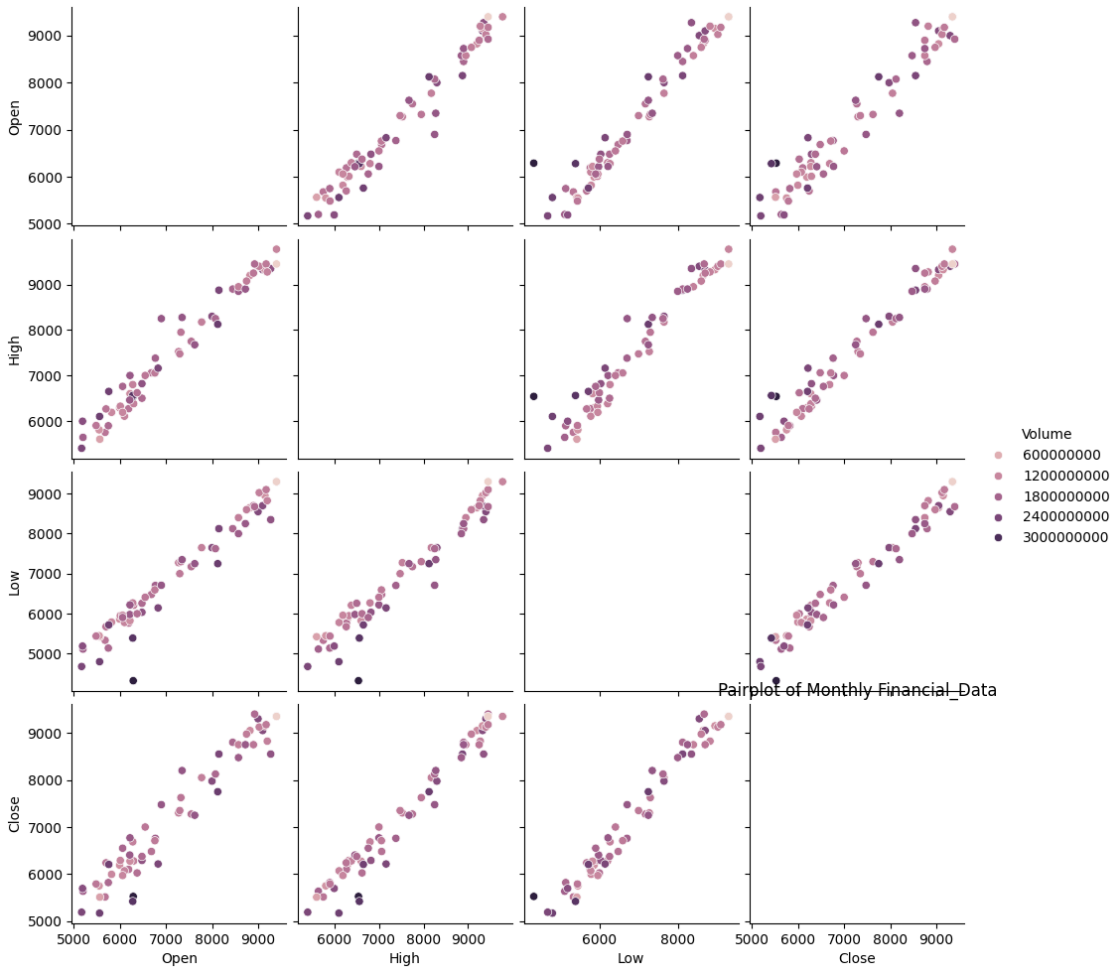
[5]:
```
print("Monthly Financial_Data")
print(iris.head())
```

```
Monthly Financial_Data
         Date    Open    High     Low   Close            Adj Close      Volume
0  2018-12-31  5200.0  5640.0  5115.0  5635.0  513.277.392.578.125  1859122000
1  2019-01-31  5680.0  5750.0  5335.0  5515.0  502.346.923.828.125  1493339500
2  2019-02-28  5565.0  5600.0  5425.0  5510.0       50.189.140.625   790477000
3  2019-03-31  5550.0  5805.0  5450.0  5750.0  523.752.392.578.125   989206000
4  2019-04-30  5750.0  5895.0  5140.0  5820.0      534.974.609.375  1700900500
```

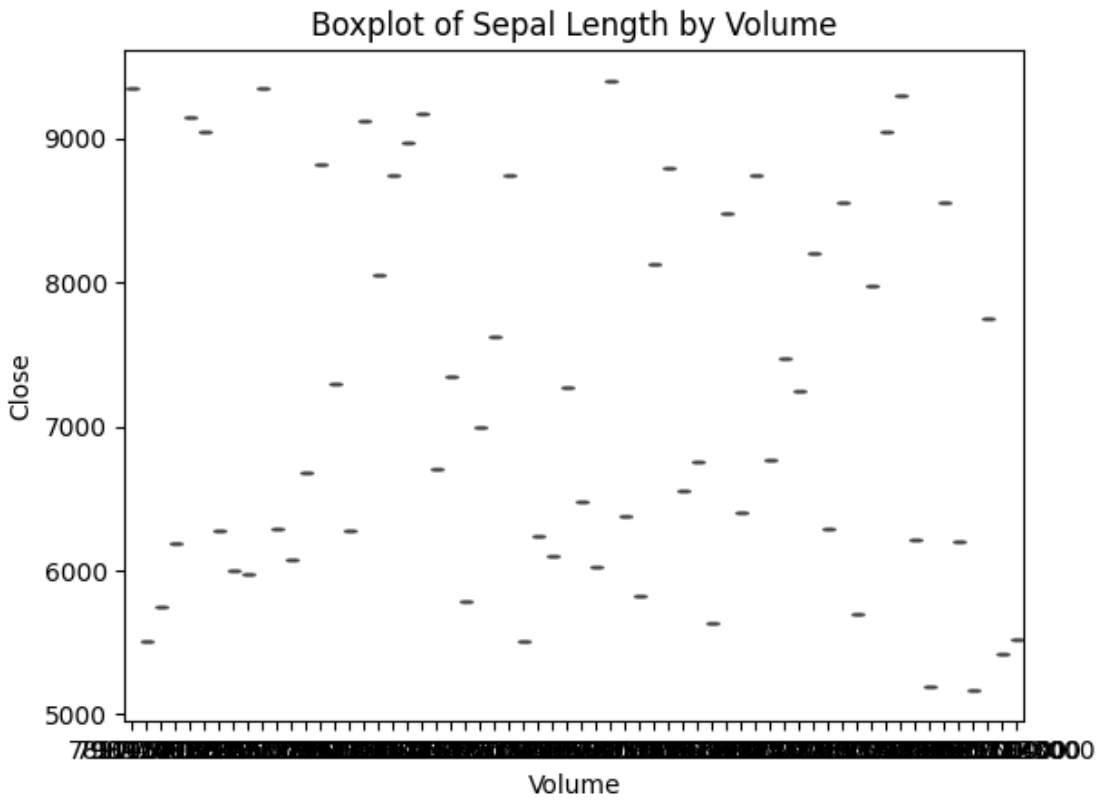
[6]:
```
print("\nSummary Statistics of Monthly Financial_Data:")
print(iris.describe())
```

```
Summary Statistics of Monthly Financial_Data:
              Open         High          Low        Close        Volume
count    62.000000    62.000000    62.000000    62.000000  6.200000e+01
mean   7152.903226  7500.241935  6866.048387  7204.032258  1.683321e+09
std    1336.251040  1322.701975  1362.125610  1337.754676  5.524159e+08
min    5170.000000  5400.000000  4325.000000  5170.000000  7.897730e+07
25%    6070.000000  6338.750000  5798.750000  6122.500000  1.299443e+09
50%    6765.000000  7110.000000  6537.500000  6765.000000  1.548008e+09
75%    8543.750000  8893.750000  8125.000000  8550.000000  2.036029e+09
max    9400.000000  9775.000000  9300.000000  9400.000000  3.403123e+09
```

[9]:
```
sns.pairplot(iris, hue='Volume')
plt.title('Pairplot of Monthly Financial_Data')
plt.show()
```



[11]:
```
sns.boxplot(x='Volume', y='Close', data=iris)
plt.title('Boxplot of Sepal Length by Volume')
plt.show()
```



[13]:
```
titanic = pd.read_csv(r"C:\Users\tiwar\Downloads\archive (1)\BBCA.JK_weekly new.csv")
```

[14]:
```
print("\nWeekly Financial_Data")
print(titanic.head())
```

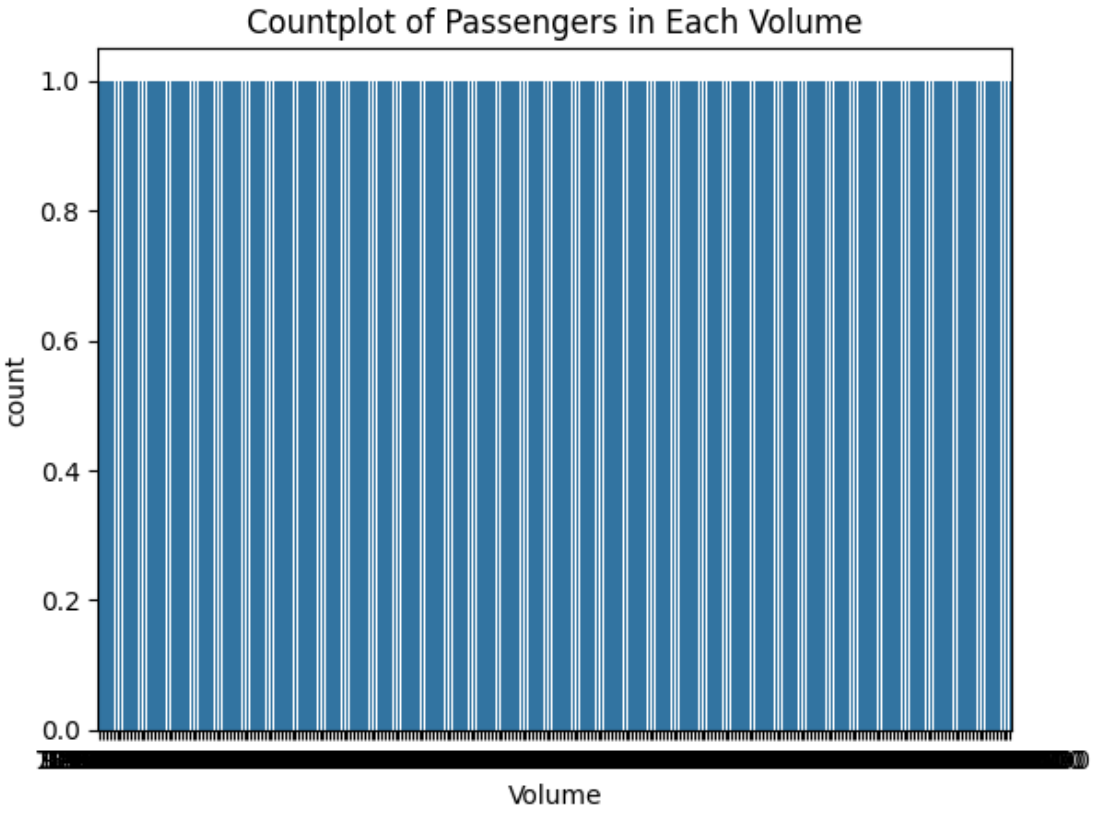
```
Weekly Financial_Data
         Date    Open    High     Low   Close            Adj Close     Volume
0  2018-12-31  5200.0  5325.0  5115.0  5245.0    4.777.533.203.125  233217000
1  2019-01-07  5230.0  5320.0  5150.0  5200.0  473.654.345.703.125  437807000
2  2019-01-14  5230.0  5600.0  5190.0  5545.0  505.079.443.359.375  462381000
3  2019-01-21  5600.0  5620.0  5355.0  5495.0  500.525.146.484.375  435848500
4  2019-01-28  5445.0  5750.0  5440.0  5500.0  500.980.517.578.125  461434500
```

[15]:
```
print("\nSummary Statistics of Weekly Financial_Data:")
print(titanic.describe())
```

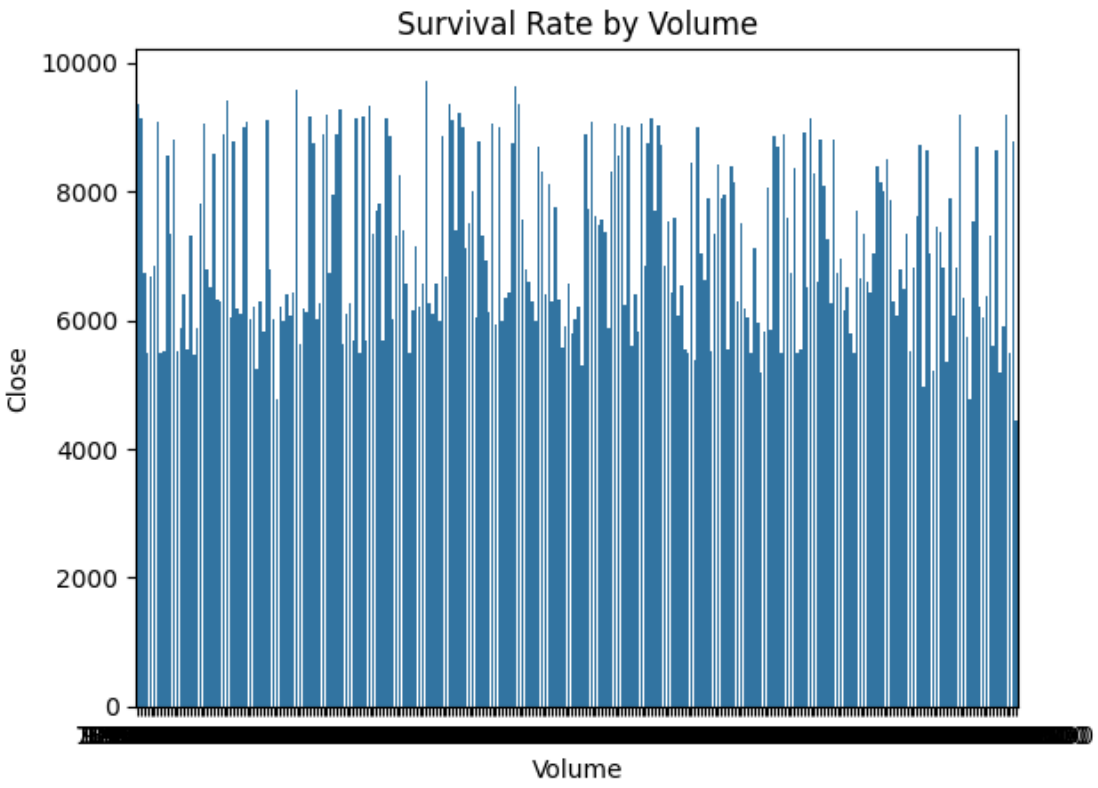
```
Summary Statistics of Weekly Financial_Data:
              Open         High          Low        Close        Volume
count   266.000000   266.000000   266.000000   266.000000  2.660000e+02
```

```
mean    7136.071429  7293.853383  7004.436090  7151.428571  3.923531e+08
std     1298.477003  1293.111248  1306.385645  1307.604474  1.733313e+08
min     4450.000000  4960.000000  4325.000000  4430.000000  7.897730e+07
25%     6050.000000  6210.000000  5980.000000  6070.000000  2.871146e+08
50%     6825.000000  6980.000000  6677.500000  6820.000000  3.642262e+08
75%     8375.000000  8618.750000  8218.750000  8418.750000  4.614306e+08
max     9700.000000  9775.000000  9550.000000  9725.000000  1.209648e+09
```

[20]:
```
sns.countplot(x='Volume', data=titanic)
plt.title('Countplot of Passengers in Each Volume')
plt.show()
```

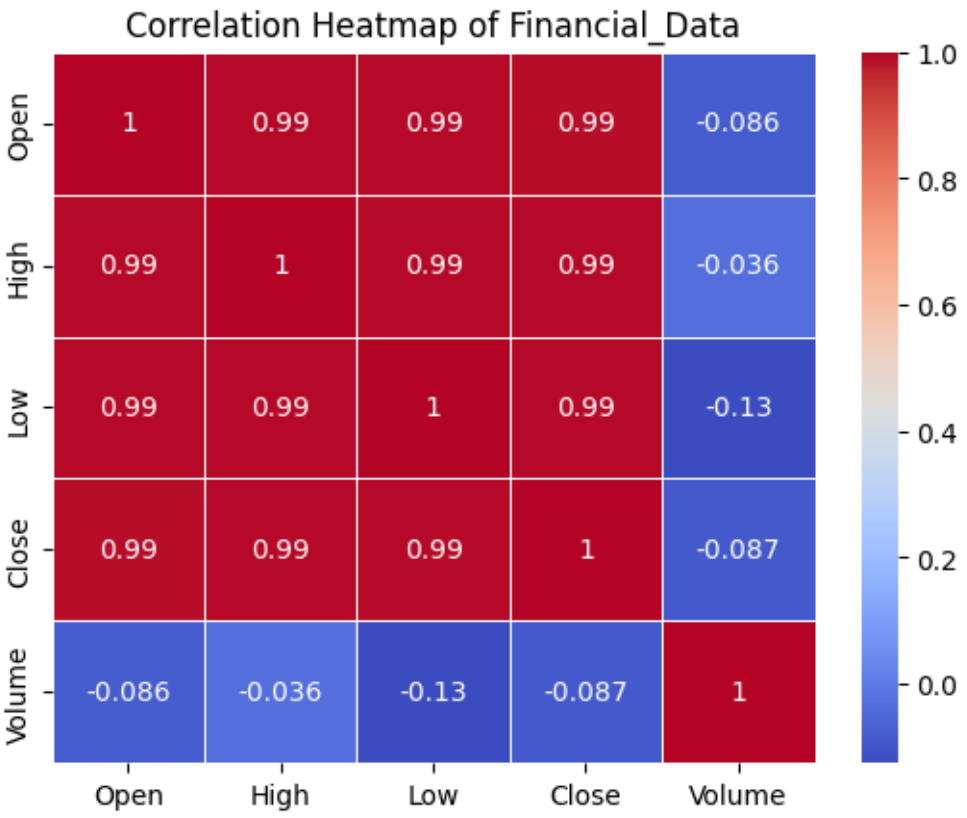


[19]:
```
sns.barplot(x='Volume', y='Close', data=titanic)
plt.title('Survival Rate by Volume')
plt.show()
```



[25]:
```
numeric_columns = titanic.select_dtypes(include=[np.number]).columns
correlation_matrix = titanic[numeric_columns].corr()
```

[27]:
```
sns.heatmap(correlation_matrix, annot=True, cmap='coolwarm', linewidths=0.5)
plt.title('Correlation Heatmap of Financial_Data')
plt.show()
```


Correlation Heatmap of Financial_Data
Open
High
Low
Close
Volume
1
0.99
0.99
0.99
-0.086
0.99
1
0.99
0.99
-0.036
0.99
0.99
1
0.99
-0.13
0.99
0.99
0.99
1
-0.087
-0.086
-0.036
-0.13
-0.087
1
Open
High
Low
Close
Volume
1.0
0.8
0.6
0.4
0.2
0.0