Financial Analytics (Project-2)

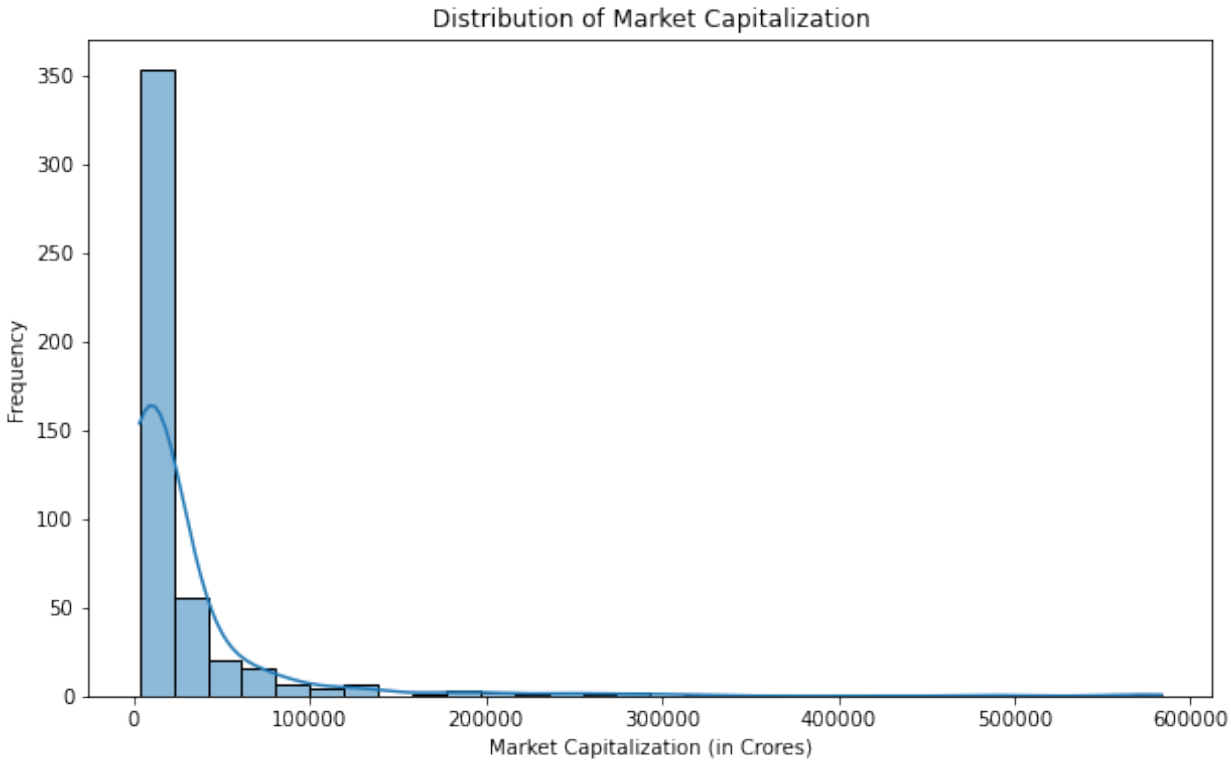
```
import pandas as pd

# Load the dataset
data = pd.read_csv(r"C:\Users\cindr\OneDrive\Desktop\Project 2\
database\Financial Analytics data.csv project2.csv")

# Check the column names
print(data.columns.tolist())
```

```
['S.No.', 'Name', 'Market Capitalization', 'Quarterly Sales']
```

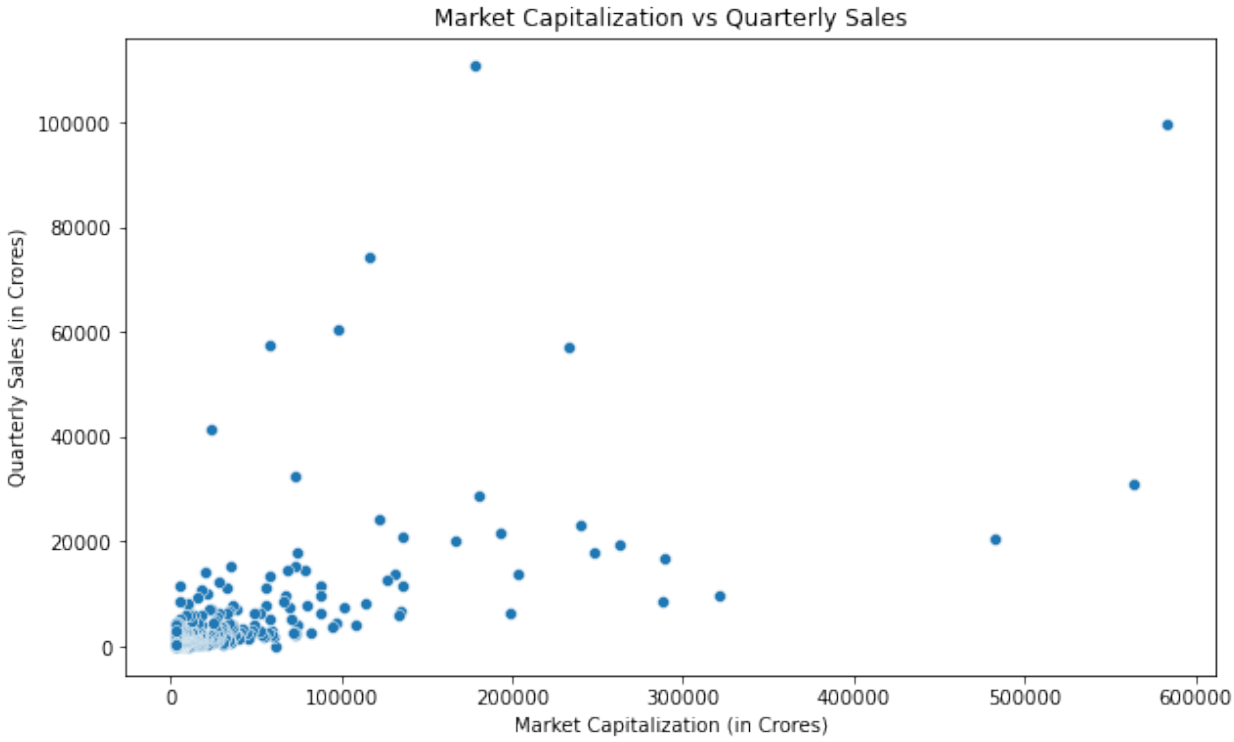
```
descriptive_stats = data.describe()

# Print the descriptive statistics
print(descriptive_stats)
```

```
            S.No.  Market Capitalization  Quarterly Sales
count  488.000000             479.000000       469.000000
mean   251.508197           28043.857119      3726.599872
std    145.884078           59464.615831      9897.478088
min      1.000000            3017.070000         0.000000
25%    122.750000            4843.575000       506.820000
50%    252.500000            9885.050000      1057.900000
75%    378.250000           23549.900000      2644.890000
max    500.000000          583436.720000    110666.930000
```

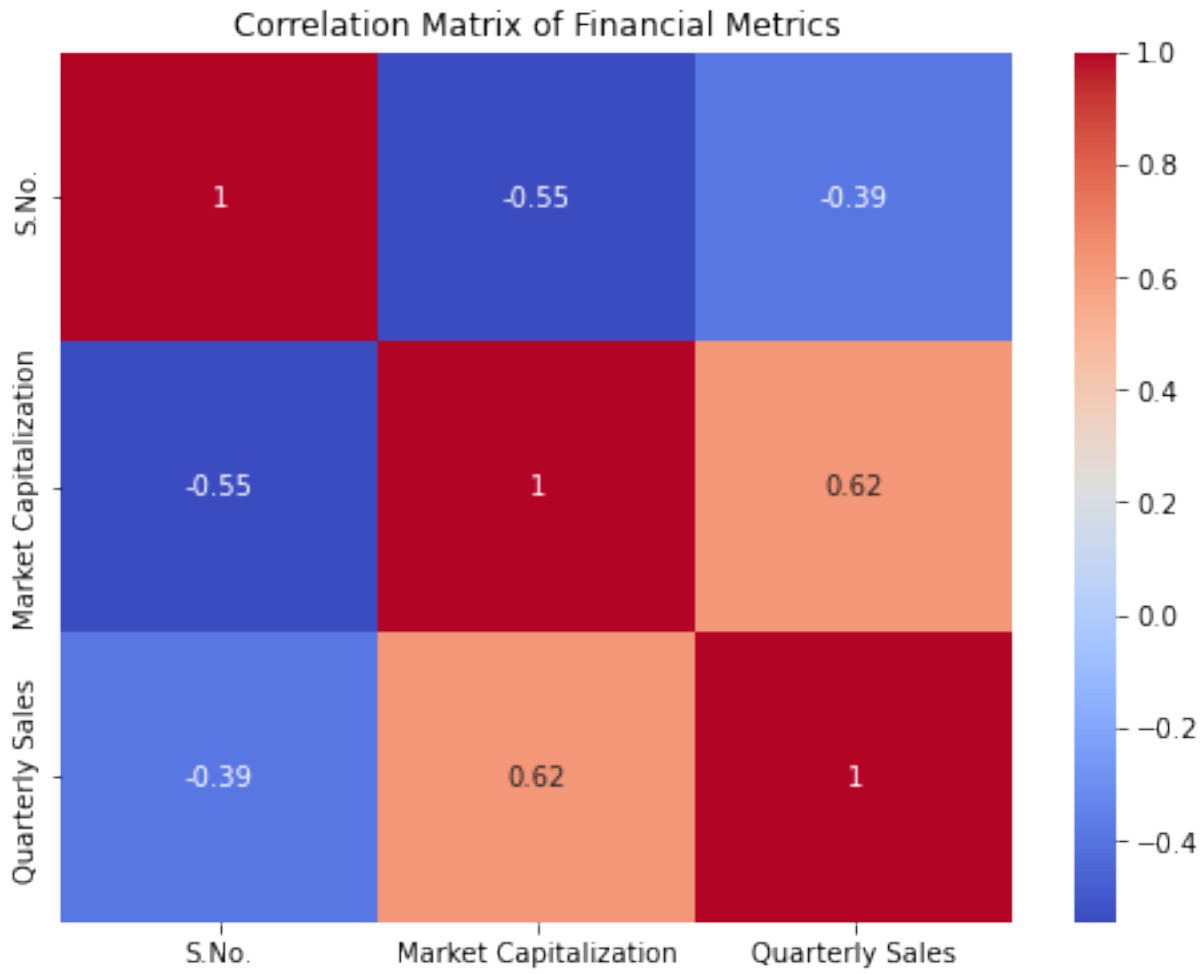
```
plt.figure(figsize=(10, 6))
sns.histplot(data['Market Capitalization'], bins=30, kde=True)
plt.title('Distribution of Market Capitalization')
plt.xlabel('Market Capitalization (in Crores)')
plt.ylabel('Frequency')
plt.show()
```




```
plt.figure(figsize=(10, 6))
sns.scatterplot(x='Market Capitalization', y='Quarterly Sales',
data=data)
plt.title('Market Capitalization vs Quarterly Sales')
plt.xlabel('Market Capitalization (in Crores)')
plt.ylabel('Quarterly Sales (in Crores)')
plt.show()
```




```
# Calculating  correlation matrix
correlation_matrix = data.corr()

# Display the correlation matrix
plt.figure(figsize=(8, 6))
sns.heatmap(correlation_matrix, annot=True, cmap='coolwarm')
plt.title('Correlation Matrix of Financial Metrics')
plt.show()
```




```
#key metrics
total_market_cap = data['Market Capitalization'].sum()
total_sales = data['Quarterly Sales'].sum()

# Print the key metrics
print(f"Total Market Capitalization: {total_market_cap} Crores")
print(f"Total Quarterly Sales: {total_sales} Crores")
```

```
Total Market Capitalization: 13433007.56 Crores
Total Quarterly Sales: 1747775.3399999999 Crores
```

```
data.to_csv(r"C:\Users\cindr\OneDrive\Desktop\Project 2\database\
Financial Analytics data.csv project2.csv")
, index=False)

# Export the key metrics
key_metrics = {
    'Total Market Capitalization': total_market_cap,
    'Total Quarterly Sales': total_sales
}
```

```
metrics_df = pd.DataFrame([key_metrics])
metrics_df.to_csv('Key_Metrics.csv', index=False)
```

The End