```
Start coding or generate with AI.
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Key Metrics to Analyze:

Market Capitalization Trends – Identify the largest companies by market cap and their growth trends.

Quarterly Sales Performance – Compare sales across different sectors.

Market Cap vs. Sales Relationship – Check if higher market cap correlates with higher sales. Sector-Wise Analysis – Identify leading sectors and their overall market share.

Top Gainers & Losers – Compare YoY or QoQ changes in market cap.

Outliers & Anomalies – Identify companies with significantly high or low valuations relative to sales.

Possible Approaches:

Python (Pandas, Matplotlib, Seaborn, Scikit-learn) – For data cleaning, visualization, and regression modeling.

Tableau/Power BI – For interactive dashboards showing trends and sector breakdowns.

Statistical Analysis – Hypothesis testing, correlation analysis, and clustering.

```
import pandas as pd
import numpy as np


# Load dataset
df = pd.read_csv("/content/Financial Analytics data.csv")

# Basic info
print(df.info())

# Check for missing values
print(df.isnull().sum())
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 488 entries, 0 to 487
Data columns (total 5 columns):
 #   Column             Non-Null Count  Dtype
---  ------             --------------  -----
 0   S.No.              488 non-null    int64
 1   Name               488 non-null    object
 2   Mar Cap - Crore    479 non-null    float64
 3   Sales Qtr - Crore  365 non-null    float64
 4   Unnamed: 4         94 non-null     float64
dtypes: float64(3), int64(1), object(1)
memory usage: 19.2+ KB
None
S.No.                  0
Name                   0
Mar Cap - Crore        9
Sales Qtr - Crore    123
Unnamed: 4           394
dtype: int64
```

```
df.head()
```

	S.No.	Name	Mar Cap - Crore	Sales Qtr - Crore	Unnamed: 4
0	1	Reliance Inds.	583436.72	99810.00	NaN
1	2	TCS	563709.84	30904.00	NaN
2	3	HDFC Bank	482953.59	20581.27	NaN
3	4	ITC	320985.27	9772.02	NaN
4	5	H D F C	289497.37	16840.51	NaN

```
# Convert Market Cap & Sales to numeric (if needed)
df['Mar Cap - Crore'] = pd.to_numeric(df['Mar Cap - Crore'], errors='coerce')
df['Sales Qtr - Crore'] = pd.to_numeric(df['Sales Qtr - Crore'], errors='coerce')
```

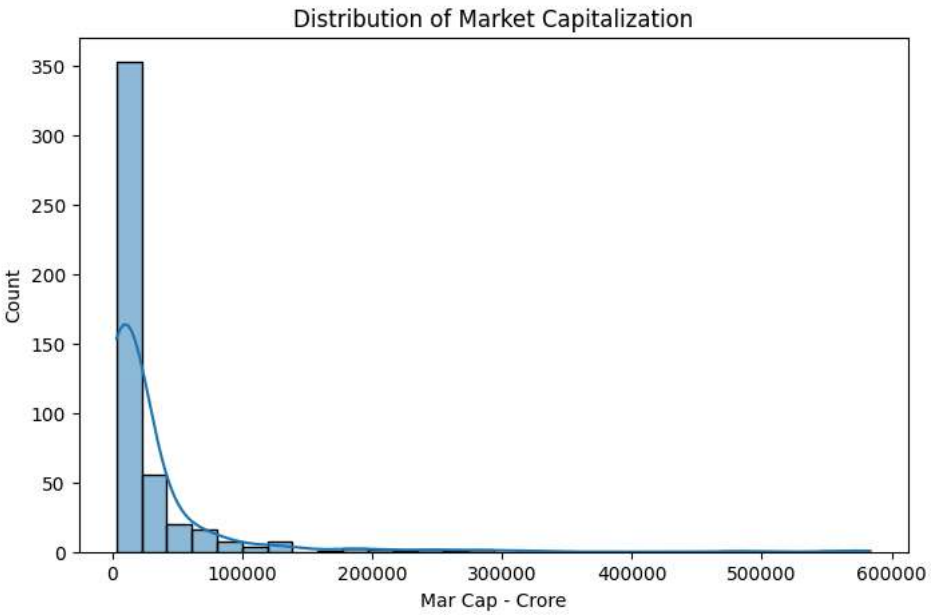
```
print(df[['Mar Cap - Crore', 'Sales Qtr - Crore']].describe())
```

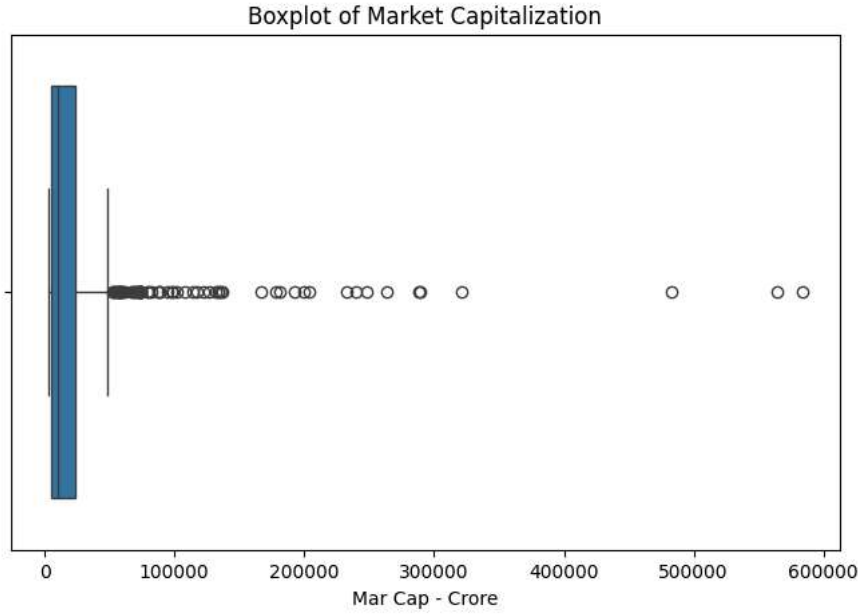
```
        Mar Cap - Crore  Sales Qtr - Crore
count       479.000000         365.000000
mean      28043.857119        4395.976849
std       59464.615831       11092.206185
min        3017.070000          47.240000
25%        4843.575000         593.740000
50%        9885.050000        1278.300000
75%       23549.900000        2840.750000
max      583436.720000      110666.930000
```

```
import matplotlib.pyplot as plt
import seaborn as sns

# Distribution of Market Capitalization
plt.figure(figsize=(8, 5))
sns.histplot(df['Mar Cap - Crore'], bins=30, kde=True)
plt.title("Distribution of Market Capitalization")
plt.show()

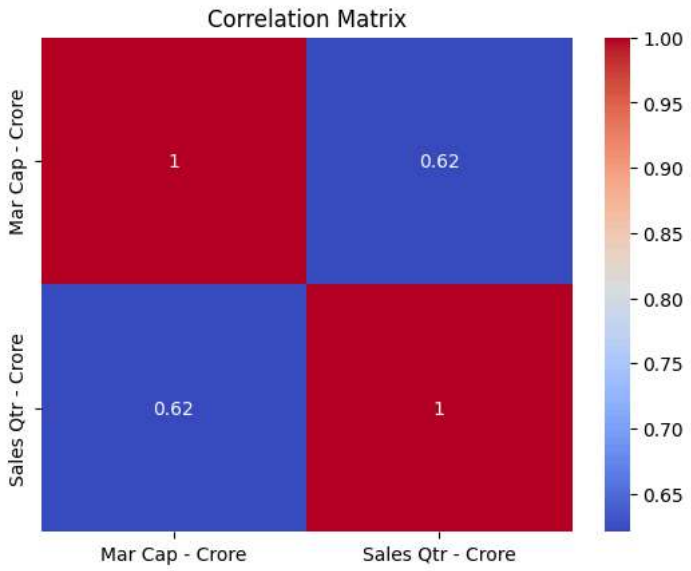
# Boxplot to detect outliers
plt.figure(figsize=(8, 5))
sns.boxplot(x=df['Mar Cap - Crore'])
plt.title("Boxplot of Market Capitalization")
plt.show()
```

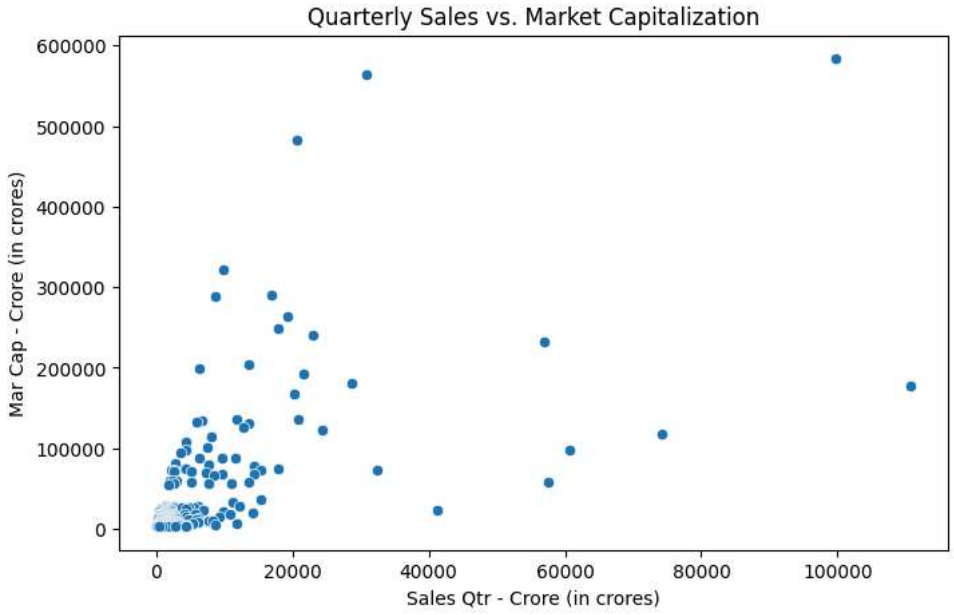





```
# Correlation Matrix
corr_matrix = df[['Mar Cap - Crore', 'Sales Qtr - Crore']].corr()
sns.heatmap(corr_matrix, annot=True, cmap="coolwarm")
plt.title("Correlation Matrix")
plt.show()

# Scatter plot to visualize the relationship
plt.figure(figsize=(8, 5))
sns.scatterplot(x=df['Sales Qtr - Crore'], y=df['Mar Cap - Crore'])
plt.title("Quarterly Sales vs. Market Capitalization")
plt.xlabel("Sales Qtr - Crore (in crores)")
plt.ylabel("Mar Cap - Crore (in crores)")
plt.show()
```



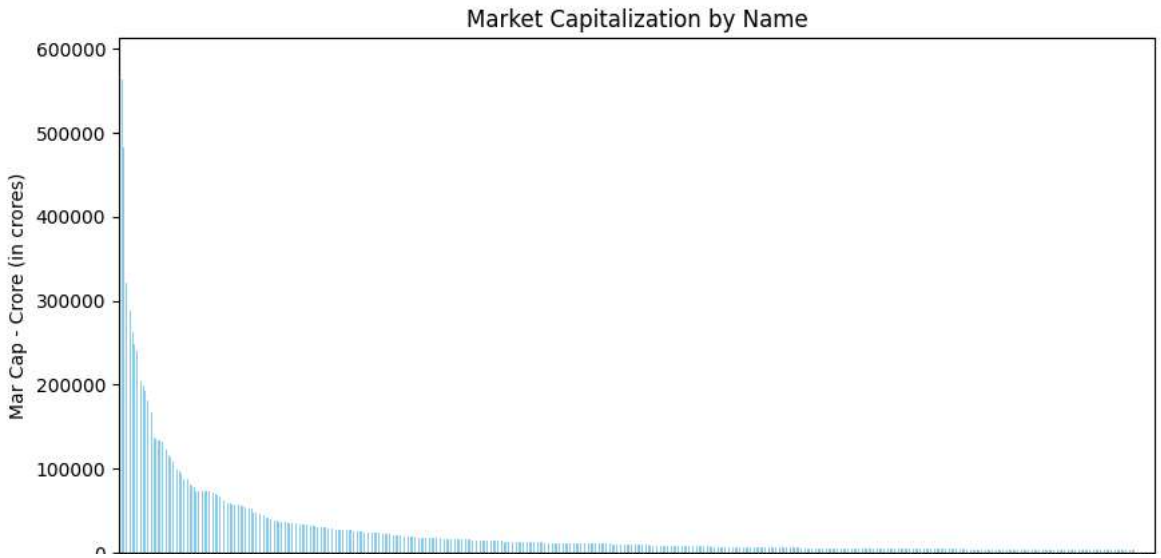


Expected Outcome:

If there's a strong positive correlation, it indicates sales drive market valuation. If not, factors like brand value, investor sentiment, or growth potential play a role

```
# Aggregate Market Cap & Sales by Sector
sector_analysis = df.groupby("Name")[["Mar Cap - Crore", "Sales Qtr - Crore"]].sum().sort_values(by="Mar Cap - Crore", ascending=False)

# Bar Plot for Top Sectors
plt.figure(figsize=(10,5))
sector_analysis['Mar Cap - Crore'].plot(kind='bar', color='skyblue')
plt.title("Market Capitalization by Name")
plt.ylabel("Mar Cap - Crore (in crores)")
#plt.xticks(rotation=45)
plt.show()
```


Market Capitalization by Name
Mar Cap - Crore (in crores)
600000
500000
400000
300000
200000
100000
0