```
In [1]:  import pandas as pd
         import numpy as np
         import matplotlib.pyplot as plt
         import seaborn as sns
         import warnings
         warnings.filterwarnings('ignore')                              # i
```

```
In [2]:  df = pd.read_csv("data1/Financial_Analytics_data.csv")  # importing dataset
```

```
In [3]:  print('Rows: {} Columns: {}'.format(df.shape[0], df.shape[1]))     # c
```

```
Rows: 488 Columns: 5
```

```
In [4]:  df.head(15)                                                          #fi
```

Out[4]:

	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
5	6	Hind. Unilever	288265.26	8590.00	NaN
6	7	Maruti Suzuki	263493.81	19283.20	NaN
7	8	Infosys	248320.35	17794.00	NaN
8	9	O N G C	239981.50	22995.88	NaN
9	10	St Bk of India	232763.33	57014.08	NaN
10	11	ICICI Bank	203802.35	13665.35	NaN
11	12	Kotak Mah. Bank	199253.77	6390.71	NaN
12	13	Coal India	192677.98	21643.28	NaN
13	14	Larsen & Toubro	180860.74	28747.45	NaN
14	15	I O C L	178017.48	110666.93	NaN

```
In [5]: df.tail(15)
```

Out[5]:

	S.No.	Name	Mar Cap - Crore	Sales Qtr - Crore	Unnamed: 4
473	486	Mahindra Logis.	3187.51	835.06	NaN
474	487	Heritage Foods	3185.45	581.74	NaN
475	488	Mah. Seamless	3164.73	563.66	NaN
476	489	Navneet Educat.	3148.36	174.41	NaN
477	490	Firstsour.Solu.	3139.94	887.24	NaN
478	491	Kaveri Seed Co.	3125.83	70.64	NaN
479	492	Star Ferro Cem.	3115.98	393.49	NaN
480	493	Deepak Fert.	3079.06	1644.92	NaN
481	494	Va Tech Wabag	3041.93	460.89	NaN
482	495	Prime Focus	3031.50	609.61	NaN
483	496	Lak. Vilas Bank	3029.57	790.17	NaN
484	497	NOCIL	3026.26	249.27	NaN
485	498	Orient Cement	3024.32	511.53	NaN
486	499	Natl.Fertilizer	3017.07	2840.75	NaN
487	500	L T Foods	NaN	NaN	NaN

```
In [6]: df.info()
```

```
<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
```

```
In [7]: df.nunique()
```

Out[7]:
```
S.No.                488
Name                 488
Mar Cap - Crore      479
Sales Qtr - Crore    365
Unnamed: 4            94
dtype: int64
```

```
In [8]:  for i, col in enumerate(df.columns):
             print(df.columns[i],":", df[str(col)].unique(), '\n')
```

```
S.No.  : [  1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16  17  18
 19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36
 37  38  39  40  41  42  43  44  45  46  47  48  49  50  51  52  53  54
 55  56  57  58  59  60  61  62  63  64  65  66  67  68  69  70  71  72
 73  74  75  76  77  78  79  80  81  82  83  84  85  86  87  88  89  90
 91  92  93  94  95  96  97  98  99 100 101 102 103 104 105 106 107 108
109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 126 127 128
129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146
147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164
165 166 167 168 169 170 171 172 173 176 177 178 179 180 181 182 183 184
185 186 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204
205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222
223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240
241 242 243 244 245 246 247 248 249 250 255 256 257 258 259 260 261 262
263 264 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282
283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300
301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318
319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336
337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354
```

Data Cleaning and Preprocessing:

```
In [9]:  pd.isnull(df).sum()
```

```
Out[9]:  S.No.                0
         Name                 0
         Mar Cap - Crore      9
         Sales Qtr - Crore  123
         Unnamed: 4         394
         dtype: int64
```

Various types of attributes

```
In [10]:  attributes = df.select_dtypes(include=['int'])
          print(attributes.columns)                                    # Identify

          Index(['S.No.'], dtype='object')
```

```
In [11]:  attributes = df.select_dtypes(include=['object'])
          print(attributes.columns)

          Index(['Name'], dtype='object')
```

```
In [12]:  attributes = df.select_dtypes(include=['float'])
          print(attributes.columns)

          Index(['Mar Cap - Crore', 'Sales Qtr - Crore', 'Unnamed: 4'], dtype='object')
```

```
In [13]: attributes.describe()                          # describe about the numerical colu
```

Out[13]:

	Mar Cap - Crore	Sales Qtr - Crore	Unnamed: 4
count	479.000000	365.000000	94.000000
mean	28043.857119	4395.976849	1523.870106
std	59464.615831	11092.206185	1800.008836
min	3017.070000	47.240000	0.000000
25%	4843.575000	593.740000	407.167500
50%	9885.050000	1278.300000	702.325000
75%	23549.900000	2840.750000	2234.815000
max	583436.720000	110666.930000	7757.060000

```
In [14]: df.head(50)
```

Out[14]:

	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
5	6	Hind. Unilever	288265.26	8590.00	NaN
6	7	Maruti Suzuki	263493.81	19283.20	NaN
7	8	Infosys	248320.35	17794.00	NaN
8	9	O N G C	239981.50	22995.88	NaN
9	10	St Bk of India	232763.33	57014.08	NaN
10	11	ICICI Bank	203802.35	13665.35	NaN
11	12	Kotak Mah. Bank	199253.77	6390.71	NaN
12	13	Coal India	192677.98	21643.28	NaN
13	14	Larsen & Toubro	180860.74	28747.45	NaN
14	15	I O C L	178017.48	110666.93	NaN
15	16	Bharti Airtel	167131.29	20318.60	NaN
16	17	Axis Bank	136380.76	11721.55	NaN
17	18	NTPC	135390.53	20774.37	NaN
18	19	Sun Pharma.Inds.	134241.36	6653.23	NaN
19	20	Hind.Zinc	133266.56	5922.00	NaN
20	21	Wipro	131840.57	13669.00	NaN
21	22	HCL Technologies	126335.27	12809.00	NaN
22	23	Vedanta	122184.17	24361.00	NaN
23	24	Tata Motors	117071.87	74156.07	NaN
24	25	UltraTech Cem.	113692.87	8019.24	NaN
25	26	Asian Paints	108044.04	4260.52	NaN
26	27	Power Grid Corpn	102016.01	7506.95	NaN
27	28	B P C L	98278.00	60616.36	NaN
28	29	IndusInd Bank	97379.96	4286.78	NaN
29	30	Bajaj Fin.	94476.77	3540.63	NaN
30	31	Bajaj Auto	88252.60	6369.34	NaN
31	32	M & M	88142.35	11577.78	NaN
32	33	HDFC Stand. Life	87358.23	9734.90	NaN
33	34	Adani Ports	81781.89	2688.85	NaN
34	35	Bajaj Finserv	79795.11	7665.40	NaN
35	36	GAIL (India)	78670.97	14414.34	NaN
36	37	Avenue Super.	74066.35	4094.82	NaN
37	38	Titan Company	73886.00	4274.84	NaN
38	39	JSW Steel	73870.26	17861.00	NaN
39	40	Grasim Inds	73532.62	15291.42	NaN
40	41	Tata Steel	73376.14	32464.14	NaN

	S.No.	Name	Mar Cap - Crore	Sales Qtr - Crore	Unnamed: 4
41	42	Eicher Motors	73311.41	2269.01	NaN
42	43	Nestle India	73015.49	2601.46	NaN
43	44	Godrej Consumer	71859.82	2630.30	NaN
44	45	Yes Bank	71028.13	5070.30	NaN
45	46	Hero Motocorp	69448.66	7305.49	NaN
46	47	Motherson Sumi	68590.33	14397.85	NaN
47	48	SBI Life Insuran	67465.00	9569.97	NaN
48	49	General Insuranc	66316.32	8557.68	NaN
49	50	Bharti Infra.	61776.92	NaN	NaN

```python
In [15]: df.rename(columns={"Mar Cap - Crore" : "Market_capitalisation", "Sales Qtr - Crore" :
                    "Unnamed: 4" : "Unnamed_4"}, inplace=True)
```

```
In [16]: df.head(50)
```

Out[16]:

	S.No.	Name	Market_capitalisation	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
5	6	Hind. Unilever	288265.26	8590.00	NaN
6	7	Maruti Suzuki	263493.81	19283.20	NaN
7	8	Infosys	248320.35	17794.00	NaN
8	9	O N G C	239981.50	22995.88	NaN
9	10	St Bk of India	232763.33	57014.08	NaN
10	11	ICICI Bank	203802.35	13665.35	NaN
11	12	Kotak Mah. Bank	199253.77	6390.71	NaN
12	13	Coal India	192677.98	21643.28	NaN
13	14	Larsen & Toubro	180860.74	28747.45	NaN
14	15	I O C L	178017.48	110666.93	NaN
15	16	Bharti Airtel	167131.29	20318.60	NaN
16	17	Axis Bank	136380.76	11721.55	NaN
17	18	NTPC	135390.53	20774.37	NaN
18	19	Sun Pharma.Inds.	134241.36	6653.23	NaN
19	20	Hind.Zinc	133266.56	5922.00	NaN
20	21	Wipro	131840.57	13669.00	NaN
21	22	HCL Technologies	126335.27	12809.00	NaN
22	23	Vedanta	122184.17	24361.00	NaN
23	24	Tata Motors	117071.87	74156.07	NaN
24	25	UltraTech Cem.	113692.87	8019.24	NaN
25	26	Asian Paints	108044.04	4260.52	NaN
26	27	Power Grid Corpn	102016.01	7506.95	NaN
27	28	B P C L	98278.00	60616.36	NaN
28	29	IndusInd Bank	97379.96	4286.78	NaN
29	30	Bajaj Fin.	94476.77	3540.63	NaN
30	31	Bajaj Auto	88252.60	6369.34	NaN
31	32	M & M	88142.35	11577.78	NaN
32	33	HDFC Stand. Life	87358.23	9734.90	NaN
33	34	Adani Ports	81781.89	2688.85	NaN
34	35	Bajaj Finserv	79795.11	7665.40	NaN
35	36	GAIL (India)	78670.97	14414.34	NaN
36	37	Avenue Super.	74066.35	4094.82	NaN
37	38	Titan Company	73886.00	4274.84	NaN
38	39	JSW Steel	73870.26	17861.00	NaN
39	40	Grasim Inds	73532.62	15291.42	NaN
40	41	Tata Steel	73376.14	32464.14	NaN

	S.No.	Name	Market_capitalisation	Sales_Qtr_Crore	Unnamed_4
41	42	Eicher Motors	73311.41	2269.01	NaN
42	43	Nestle India	73015.49	2601.46	NaN
43	44	Godrej Consumer	71859.82	2630.30	NaN
44	45	Yes Bank	71028.13	5070.30	NaN
45	46	Hero Motocorp	69448.66	7305.49	NaN
46	47	Motherson Sumi	68590.33	14397.85	NaN
47	48	SBI Life Insuran	67465.00	9569.97	NaN
48	49	General Insuranc	66316.32	8557.68	NaN
49	50	Bharti Infra.	61776.92	NaN	NaN

Outliers Detections

In [17]:
```
df.info()
```

```
<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   Market_capitalisation  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
```

In [18]:
```
col_for_outliers=['Market_capitalisation', 'Sales_Qtr_Crore']
summary_pre_outliers_detection = df[col_for_outliers].describe()
summary_pre_outliers_detection
```

Out[18]:

	Market_capitalisation	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

```
In [19]: for i in col_for_outliers:
             Q1 = np.percentile(df[i], 25)
             Q3 = np.percentile(df[i], 75)

         IQR = Q3-Q1
         LB = Q1-1.5*IQR
         UB = Q3+1.5*IQR

         df[i] = np.where(df[i] < LB, LB, df[i])
         df[i] = np.where(df[i] > UB, UB, df[i])

         summary_post_outliers_detection = df[col_for_outliers].describe()
         summary_post_outliers_detection
```

Out[19]:

	Market_capitalisation	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

```
In [20]: df["Sales_Qtr_Crore"].fillna(0.00, inplace = True)
         df["Market_capitalisation"].fillna(0.00, inplace = True)
         df["Unnamed_4"].fillna(0.00, inplace = True)
```

```
In [21]: df.head(100)
```

Out[21]:

	S.No.	Name	Market_capitalisation	Sales_Qtr_Crore	Unnamed_4
0	1	Reliance Inds.	583436.72	99810.00	0.00
1	2	TCS	563709.84	30904.00	0.00
2	3	HDFC Bank	482953.59	20581.27	0.00
3	4	ITC	320985.27	9772.02	0.00
4	5	H D F C	289497.37	16840.51	0.00
...	...	...	...	...	...
95	96	Bajaj Holdings	30305.94	0.00	317.85
96	97	P & G Hygiene	30202.12	0.00	704.16
97	98	MRF	30030.01	0.00	3798.82
98	99	Shriram Trans.	29327.64	0.00	3087.67
99	100	Colgate-Palm.	0.00	0.00	0.00

100 rows × 5 columns

```
In [22]: nan_mask = df["Sales_Qtr_Crore"].isna()
         verification_df = df[nan_mask & pd.to_numeric(df["Unnamed_4"], errors= 'coerce').notr
         print(verification_df)
```

```
Empty DataFrame
Columns: [S.No., Name, Market_capitalisation, Sales_Qtr_Crore, Unnamed_4]
Index: []
```

```
In [23]: df['Sales_Qtr_Crore'] = df['Sales_Qtr_Crore'].astype(float)
         df['Unnamed_4'] = df['Unnamed_4'].astype(float)
         df['Market_capitalisation'] = df['Market_capitalisation'].astype(float)
```

```
In [24]: df["Sales_Qtr_Cr"] = df["Sales_Qtr_Crore"] + df["Unnamed_4"]
```

```
In [25]: df.head(50)
```

	S.No.	Name	Market_capitalisation	Sales_Qtr_Crore	Unnamed_4	Sales_Qtr_Cr
0	1	Reliance Inds.	583436.72	99810.00	0.0	99810.00
1	2	TCS	563709.84	30904.00	0.0	30904.00
2	3	HDFC Bank	482953.59	20581.27	0.0	20581.27
3	4	ITC	320985.27	9772.02	0.0	9772.02
4	5	H D F C	289497.37	16840.51	0.0	16840.51
5	6	Hind. Unilever	288265.26	8590.00	0.0	8590.00
6	7	Maruti Suzuki	263493.81	19283.20	0.0	19283.20
7	8	Infosys	248320.35	17794.00	0.0	17794.00
8	9	O N G C	239981.50	22995.88	0.0	22995.88
9	10	St Bk of India	232763.33	57014.08	0.0	57014.08
10	11	ICICI Bank	203802.35	13665.35	0.0	13665.35
11	12	Kotak Mah. Bank	199253.77	6390.71	0.0	6390.71
12	13	Coal India	192677.98	21643.28	0.0	21643.28
13	14	Larsen & Toubro	180860.74	28747.45	0.0	28747.45
14	15	I O C L	178017.48	110666.93	0.0	110666.93
15	16	Bharti Airtel	167131.29	20318.60	0.0	20318.60
16	17	Axis Bank	136380.76	11721.55	0.0	11721.55
17	18	NTPC	135390.53	20774.37	0.0	20774.37
18	19	Sun Pharma.Inds.	134241.36	6653.23	0.0	6653.23
19	20	Hind.Zinc	133266.56	5922.00	0.0	5922.00
20	21	Wipro	131840.57	13669.00	0.0	13669.00
21	22	HCL Technologies	126335.27	12809.00	0.0	12809.00
22	23	Vedanta	122184.17	24361.00	0.0	24361.00
23	24	Tata Motors	117071.87	74156.07	0.0	74156.07
24	25	UltraTech Cem.	113692.87	8019.24	0.0	8019.24
25	26	Asian Paints	108044.04	4260.52	0.0	4260.52
26	27	Power Grid Corpn	102016.01	7506.95	0.0	7506.95
27	28	B P C L	98278.00	60616.36	0.0	60616.36
28	29	IndusInd Bank	97379.96	4286.78	0.0	4286.78
29	30	Bajaj Fin.	94476.77	3540.63	0.0	3540.63
30	31	Bajaj Auto	88252.60	6369.34	0.0	6369.34
31	32	M & M	88142.35	11577.78	0.0	11577.78
32	33	HDFC Stand. Life	87358.23	9734.90	0.0	9734.90
33	34	Adani Ports	81781.89	2688.85	0.0	2688.85
34	35	Bajaj Finserv	79795.11	7665.40	0.0	7665.40
35	36	GAIL (India)	78670.97	14414.34	0.0	14414.34
36	37	Avenue Super.	74066.35	4094.82	0.0	4094.82
37	38	Titan Company	73886.00	4274.84	0.0	4274.84
38	39	JSW Steel	73870.26	17861.00	0.0	17861.00
39	40	Grasim Inds	73532.62	15291.42	0.0	15291.42
40	41	Tata Steel	73376.14	32464.14	0.0	32464.14

	S.No.	Name	Market_capitalisation	Sales_Qtr_Crore	Unnamed_4	Sales_Qtr_Cr
41	42	Eicher Motors	73311.41	2269.01	0.0	2269.01
42	43	Nestle India	73015.49	2601.46	0.0	2601.46
43	44	Godrej Consumer	71859.82	2630.30	0.0	2630.30
44	45	Yes Bank	71028.13	5070.30	0.0	5070.30
45	46	Hero Motocorp	69448.66	7305.49	0.0	7305.49
46	47	Motherson Sumi	68590.33	14397.85	0.0	14397.85
47	48	SBI Life Insuran	67465.00	9569.97	0.0	9569.97
48	49	General Insuranc	66316.32	8557.68	0.0	8557.68
49	50	Bharti Infra.	61776.92	0.00	0.0	0.00

In [26]: `df.drop(['Unnamed_4', 'Sales_Qtr_Crore'], axis=1, inplace=True)`

In [27]: `df`

Out[27]:

	S.No.	Name	Market_capitalisation	Sales_Qtr_Cr
0	1	Reliance Inds.	583436.72	99810.00
1	2	TCS	563709.84	30904.00
2	3	HDFC Bank	482953.59	20581.27
3	4	ITC	320985.27	9772.02
4	5	H D F C	289497.37	16840.51
...	...	...	...	...
483	496	Lak. Vilas Bank	3029.57	790.17
484	497	NOCIL	3026.26	249.27
485	498	Orient Cement	3024.32	511.53
486	499	Natl.Fertilizer	3017.07	2840.75
487	500	L T Foods	0.00	0.00

488 rows × 4 columns

In [28]: `df = df.drop(df[(df["Market_capitalisation"] == 0.00) & (df["Sales_Qtr_Cr"] == 0.00)]`

```
In [29]:  df
```

Out[29]:

	S.No.	Name	Market_capitalisation	Sales_Qtr_Cr
0	1	Reliance Inds.	583436.72	99810.00
1	2	TCS	563709.84	30904.00
2	3	HDFC Bank	482953.59	20581.27
3	4	ITC	320985.27	9772.02
4	5	H D F C	289497.37	16840.51
...	...	...	...	...
482	495	Prime Focus	3031.50	609.61
483	496	Lak. Vilas Bank	3029.57	790.17
484	497	NOCIL	3026.26	249.27
485	498	Orient Cement	3024.32	511.53
486	499	Natl.Fertilizer	3017.07	2840.75

479 rows × 4 columns

```
In [30]:  df.drop(['S.No.'], axis=1, inplace=True)
```

Exploratory Data Analysis (EDA):

```
In [31]:  df.plot(figsize=(20, 8));
```
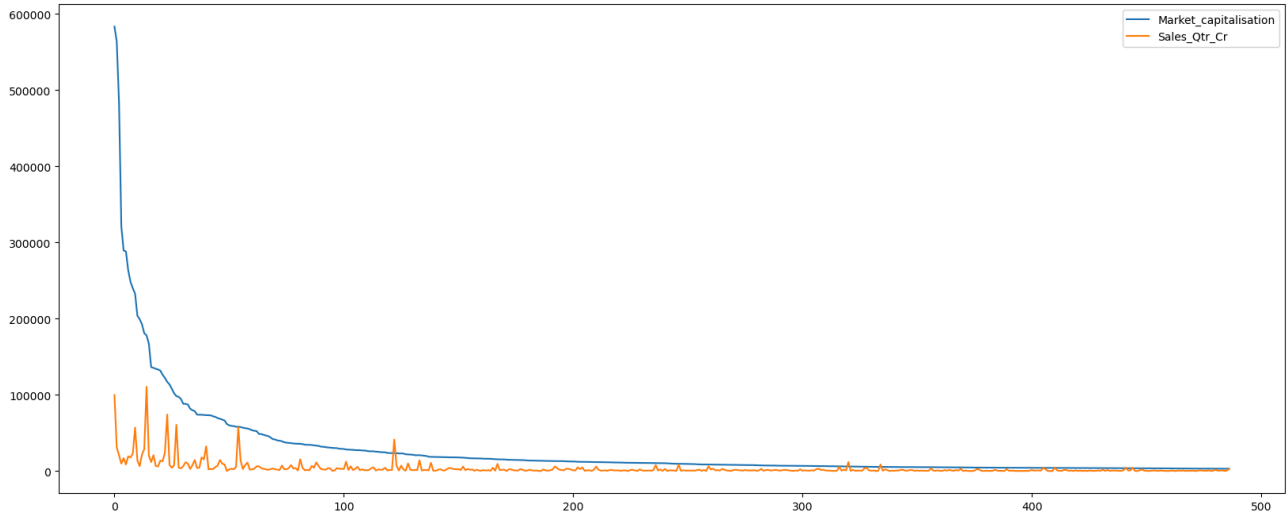
```
In [32]: corr_df = df.corr()
         sns.heatmap(corr_df, xticklabels=corr_df, yticklabels=corr_df, cmap='turbo_r', annot
         plt.title('Distributions')
```

Out[32]: Text(0.5, 1.0, 'Distributions')
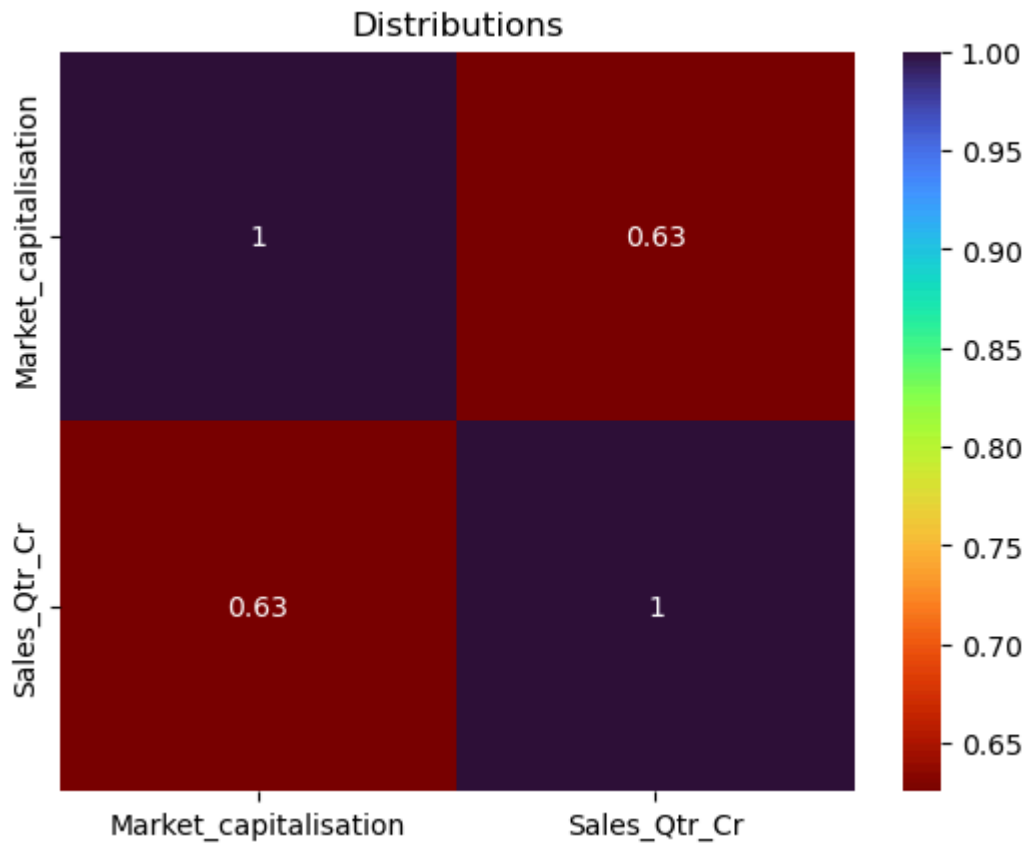

```
In [33]: Market_capitalisation = df['Market_capitalisation'].value_counts()
         plt.figure(figsize=(10, 5))
         sns.distplot(df['Market_capitalisation'], bins=20)
         plt.title('Distribution of Market_capitalisation', fontdict={'fontsize': 20, 'fontwei
         plt.xlabel('Market_capitalisation')
         plt.ylabel('Across Company')
         plt.show()
```
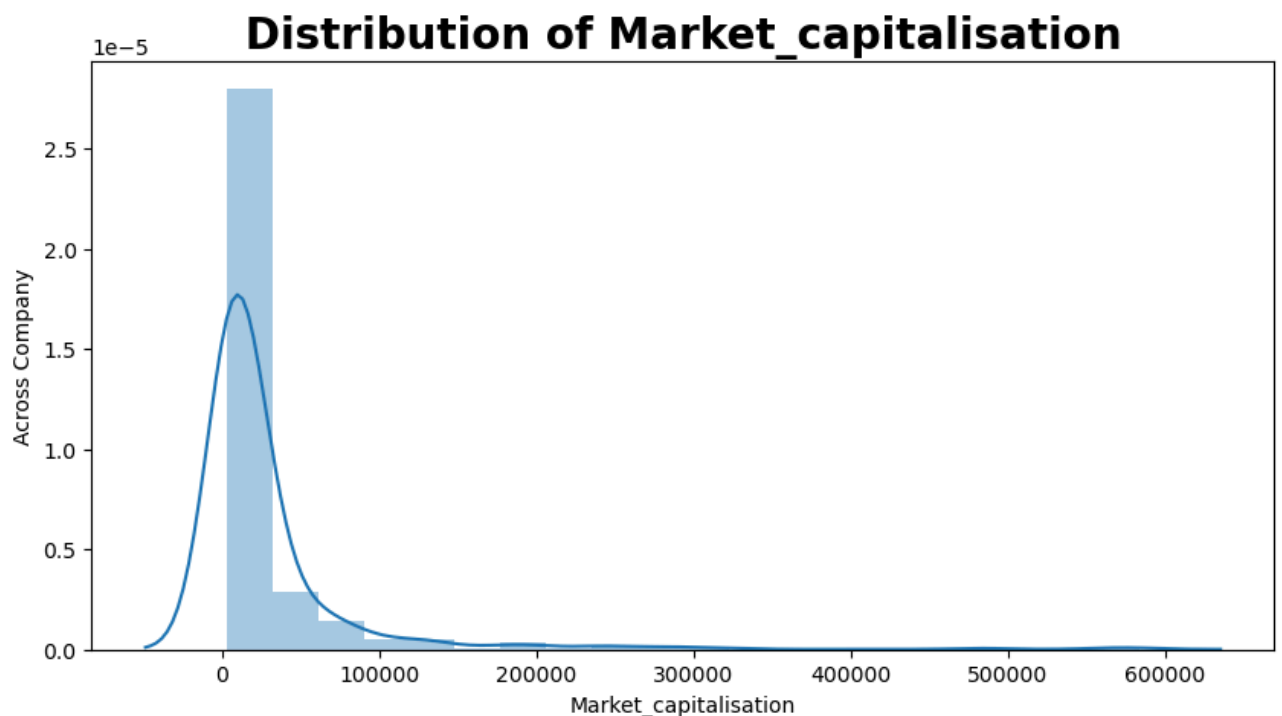
```
In [34]: graph = df["Market_capitalisation"]

         mean_price = graph.mean()
         median_price = graph.median()
         std = graph.std()

         skewness = (3 * (mean_price - median_price)) / std

         print(f"The skewness score of market_capitalisation: {skewness:.5f}")
```

The skewness score of market_capitalisation: 0.91611

```
In [35]: sns.lineplot(x="Market_capitalisation", y="Sales_Qtr_Cr", data=df)
```

Out[35]: <AxesSubplot:xlabel='Market_capitalisation', ylabel='Sales_Qtr_Cr'>
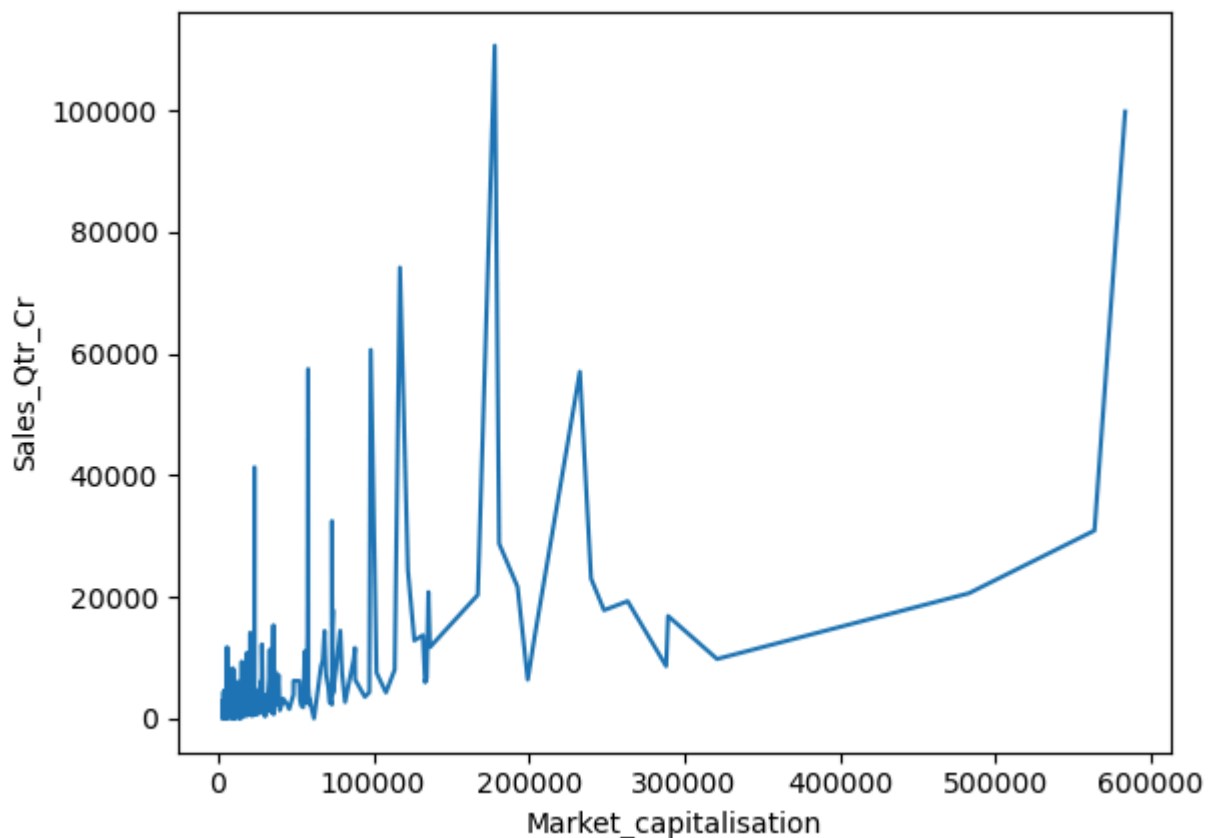

```
In [36]: sns.pairplot(data=df, hue="Sales_Qtr_Cr")
```

Out[36]: <seaborn.axisgrid.PairGrid at 0x21450530970>
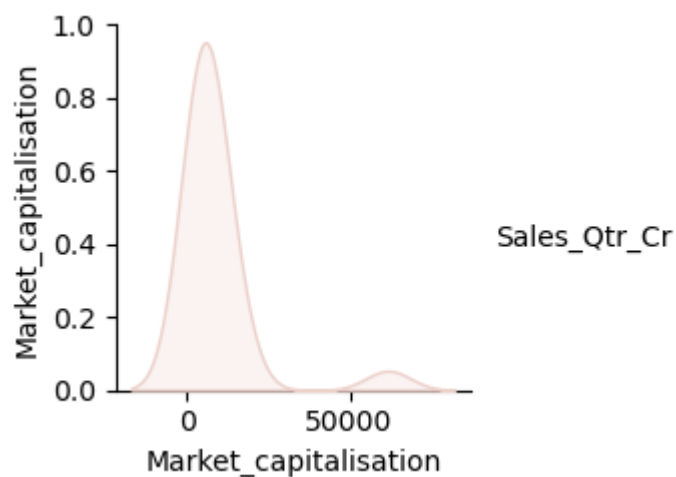
```
In [37]: sns.pairplot(data=df, hue="Name")
```

Out[37]: <seaborn.axisgrid.PairGrid at 0x21450a0b1c0>


```
In [38]: plt.plot(df.Sales_Qtr_Cr, df.Market_capitalisation)
```
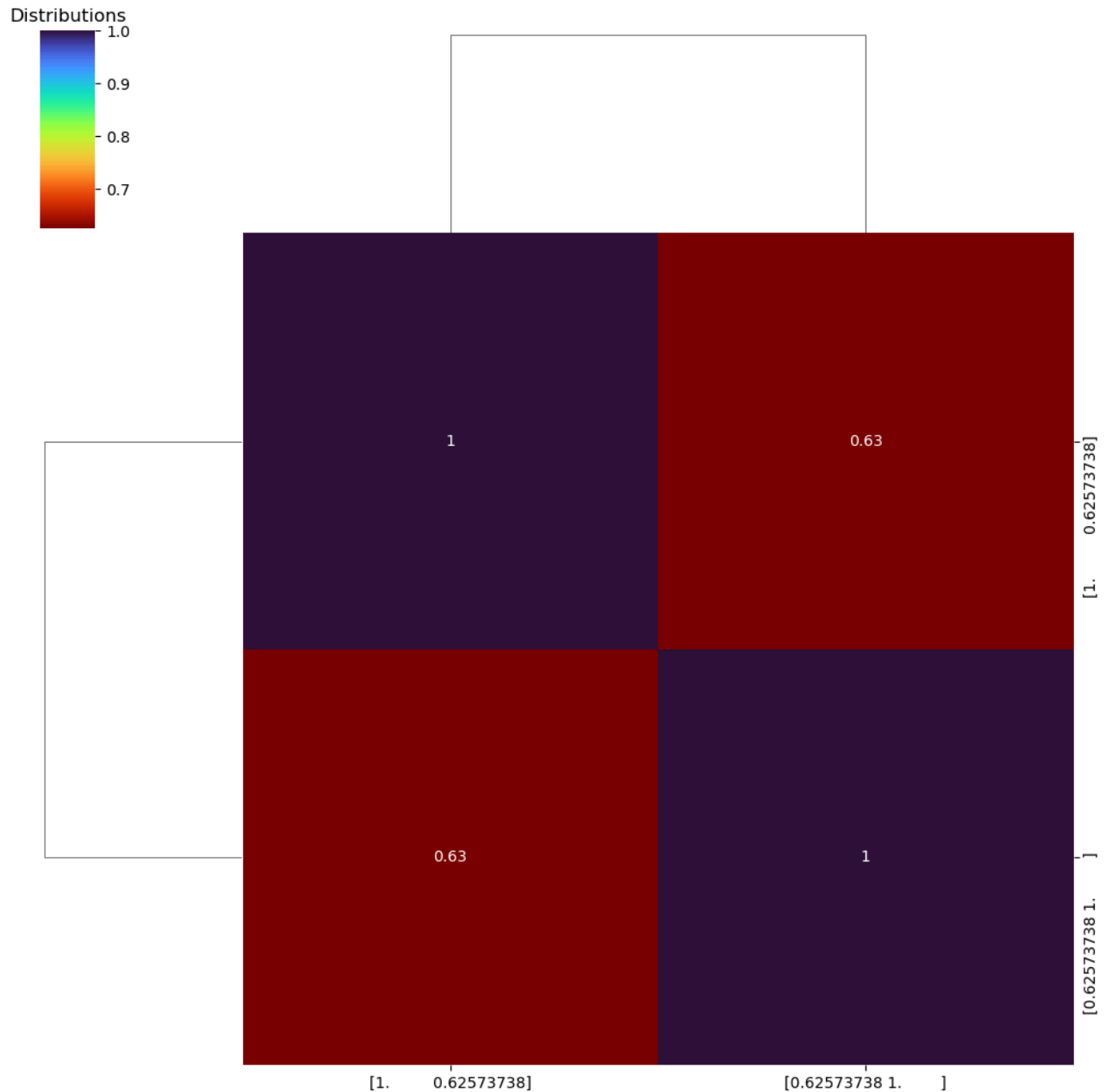
Out[38]: [<matplotlib.lines.Line2D at 0x2145341b040>]
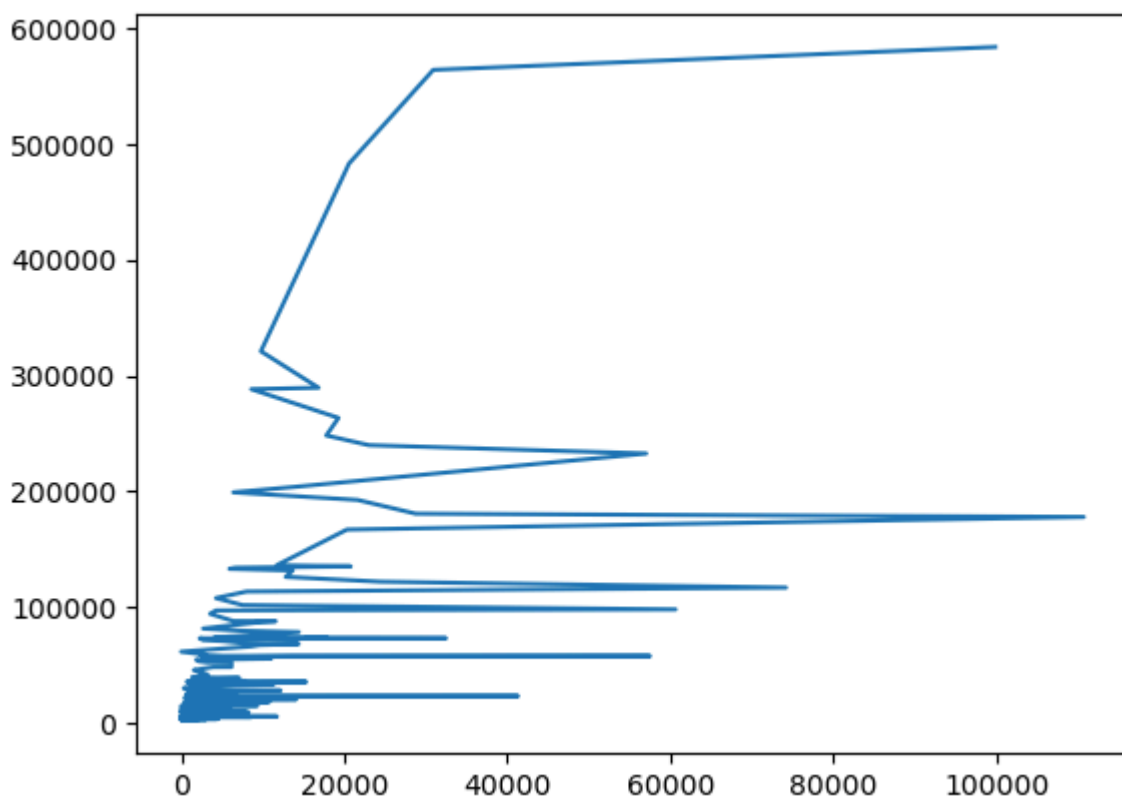
```
In [39]: corr_df = df.corr()
         sns.clustermap(corr_df, xticklabels=corr_df,  yticklabels=corr_df, cmap='turbo_r', ar
         plt.title('Distributions')
```

Out[39]: Text(0.5, 1.0, 'Distributions')


```
In [40]: print(df[['Market_capitalisation', 'Sales_Qtr_Cr']].corr())
```

```
                       Market_capitalisation  Sales_Qtr_Cr
Market_capitalisation               1.000000      0.625737
Sales_Qtr_Cr                        0.625737      1.000000
```

```
In [41]: print(df[['Market_capitalisation', 'Sales_Qtr_Cr']].mean())
```

```
Market_capitalisation    28043.857119
Sales_Qtr_Cr              3648.800292
dtype: float64
```

```
In [42]: print(df[['Market_capitalisation', 'Sales_Qtr_Cr']].median())
```

```
Market_capitalisation    9885.05
Sales_Qtr_Cr             1012.94
dtype: float64
```

```
In [43]: print(df[['Market_capitalisation', 'Sales_Qtr_Cr']].var())
```

```
Market_capitalisation    3.536041e+09
Sales_Qtr_Cr             9.619517e+07
dtype: float64
```

```
In [ ]:
```