```
# Importing Important Libraries.
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```
# Loading excel data to pandas data frames
df = pd.read_excel('/content/Indiamart_Final_Submission.xlsx')
df
```

	Keyword	Company	Name	Price	Location	Rating
0	electronic	Shashi Kala Enterprise	electronics	NaN	Darbhanga	NaN
1	electronic	Sahasra Enterprises	Electronic Speed Governor	2500.0	Patna	5.0
2	electronic	Mannat The Jeweller	Rhino Gold Electronic, For Office, 50 Litre	31699.0	Patna	4.4
3	electronic	ARD Enterprises	Godrej Rhino Electronic Safe (55 LTR, 5mm Door...	32600.0	Patna	3.9
4	electronic	Kiran Auto	E Scooty USB FLASHER 3 Pin	70.0	Patna	4.1
...	...	...	...	...	...	...
102	processor	Multi Media Shopee	Desktop Processor	NaN	Tikari	3.0
103	processor	New Patna Computer	Intel Core 10th Gen i5 Desktop Processor	12500.0	Muzaffarpur	NaN
104	processor	Indian Computer	Intel I3 Core Processor	NaN	Gaya	NaN
105	processor	Galaxy	Bajaj Food Factory FX 11 600 Watts Food Processor	9425.0	Patna	3.4
106	processor	Rose Medicare Private Limited	TP1020 AUTOMATIC TISSUE PROCESSOR	NaN	Patna	3.9

107 rows × 6 columns

Next steps: Generate code with df | New interactive sheet

```
# Get the size and shape of the dataset.
df.shape
```

```
(107, 6)
```

```
# First 10 rows of the dataset.
df.head(10)
```

	Keyword	Company	Name	Price	Location	Rating
0	electronic	Shashi Kala Enterprise	electronics	NaN	Darbhanga	NaN
1	electronic	Sahasra Enterprises	Electronic Speed Governor	2500.0	Patna	5.0
2	electronic	Mannat The Jeweller	Rhino Gold Electronic, For Office, 50 Litre	31699.0	Patna	4.4
3	electronic	ARD Enterprises	Godrej Rhino Electronic Safe (55 LTR, 5mm Door...	32600.0	Patna	3.9
4	electronic	Kiran Auto	E Scooty USB FLASHER 3 Pin	70.0	Patna	4.1
5	electronic	Mahalaxmi	electronics	NaN	Motihari	5.0
6	electronic	Mahadev Electronics	Electronic Products	NaN	Jamui	NaN
7	electronic	S.A. Electronics	S. A. Electronics	NaN	Araria	NaN
8	electronic	Laxmi Trading Company	Mechatronics Products	NaN	Gorakhpur	NaN
9	electronic	Patna Global Enterprises Private Limited	s	14190.0	Patna	NaN

Next steps: Generate code with df | New interactive sheet

```
# Last 10 rows of the dataset.
df.tail(10)
```

	Keyword	Company	Name	Price	Location	Rating
97	processor	Hardware Solution	Intel Core Ultra 9 Desktop Processor	NaN	Chapra	NaN
98	processor	Binda Infosys Core	Intel Core I7	118.0	Patna	NaN
99	processor	Computer Planet	10th Gen Core I7	NaN	Patna	NaN
100	processor	Golden Sales Corporation	Intel Core 10th Gen	NaN	Patna	NaN
101	processor	Computer Care	Intel Core I3	NaN	Arrah	NaN
102	processor	Multi Media Shopee	Desktop Processor	NaN	Tikari	3.0
103	processor	New Patna Computer	Intel Core 10th Gen i5 Desktop Processor	12500.0	Muzaffarpur	NaN
104	processor	Indian Computer	Intel I3 Core Processor	NaN	Gaya	NaN
105	processor	Galaxy	Bajaj Food Factory FX 11 600 Watts Food Processor	9425.0	Patna	3.4
106	processor	Rose Medicare Private Limited	TP1020 AUTOMATIC TISSUE PROCESSOR	NaN	Patna	3.9

```
# Statistical measure\description about InstaMart.
df.describe()
```

	Price	Rating
count	55.000000	61.000000
mean	29080.854545	3.919672
std	34464.988090	0.771971
min	36.000000	2.000000
25%	1369.500000	3.500000
50%	18999.000000	3.900000
75%	47450.000000	4.500000
max	159900.000000	5.000000

```
# Statistical Information about InstaMart.
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 107 entries, 0 to 106
Data columns (total 6 columns):
 #   Column    Non-Null Count  Dtype  
---  ------    --------------  -----  
 0   Keyword   107 non-null    object 
 1   Company   107 non-null    object 
 2   Name      107 non-null    object 
 3   Price     55 non-null     float64
 4   Location  107 non-null    object 
 5   Rating    61 non-null     float64
dtypes: float64(2), object(4)
memory usage: 5.1+ KB
```

```
# Checking for missing values.
df.isnull()
```

	Keyword	Company	Name	Price	Location	Rating
0	False	False	False	True	False	True
1	False	False	False	False	False	False
2	False	False	False	False	False	False
3	False	False	False	False	False	False
4	False	False	False	False	False	False
...	...	...	...	...	...	...
102	False	False	False	True	False	False
103	False	False	False	False	False	True
104	False	False	False	True	False	True
105	False	False	False	False	False	False
106	False	False	False	True	False	False

107 rows × 6 columns

```
df.isnull().sum()
```

	0
Keyword	0
Company	0
Name	0
Price	52
Location	0
Rating	46

dtype: int64

```
df.dropna()
```

	Keyword	Company	Name	Price	Location	Rating
1	electronic	Sahasra Enterprises	Electronic Speed Governor	2500.0	Patna	5.0
2	electronic	Mannat The Jeweller	Rhino Gold Electronic, For Office, 50 Litre	31699.0	Patna	4.4
3	electronic	ARD Enterprises	Godrej Rhino Electronic Safe (55 LTR, 5mm Door...	32600.0	Patna	3.9
4	electronic	Kiran Auto	E Scooty USB FLASHER 3 Pin	70.0	Patna	4.1
10	industrial machinery	Global Advertising Agency & Agro Industries	Multipurpose ronda machine	95000.0	Patna	3.7
20	laptops	Universal Power Solutions	Hp Laptop System, Intel Core i5	60000.0	Patna	4.1
21	laptops	Patna Computer House	Lenovo V14 G3 Laptops, 14 inches, Core i7	26000.0	Patna	3.1
22	laptops	Patna Computers Private Limited	Asus Vivobook Laptop, Core i3	31500.0	Patna	4.5
24	laptops	Pro Computer	Dell Latitude 3450 Laptop, 14 inches, Intel Co...	73500.0	Mumbai	3.8
25	laptops	Shree Infosys	Elitebook AMD Ryzen 5 HP Laptop	34990.0	Mumbai	3.8
26	laptops	Lakshya Computers	NOTEBOOK HP Laptop 240 G9 Laptop, Intel Core i5	48500.0	Mumbai	4.1
27	laptops	Ultimate IT Solution	Acer Aspire Lite 13th Gen Intel Core i3-1305U ...	36999.0	Mumbai	4.7
28	laptops	Metro Computers	HP Omen, Intel Core Ultra 7 255H an0015TX RGB ...	138990.0	Mumbai	4.8
29	laptops	Vikas Trading	Pavilion HP 15 Laptop 11th Gen I3 1115G4 Laptop	28790.0	Mumbai	4.2
32	laptops	A-1 Technology	HP 15-fd0465TU Laptop, Intel Core i3	35000.0	Hajipur	4.7
34	laptops	Green PC World Private Limited	HP Refurbished Laptop 6460	10000.0	Gurugram	4.1
35	laptops	Stateless Technologies Private Limited	HP 250 G8 Laptop, Core i5	55000.0	New Delhi	4.0
36	laptops	TS Infocom Private Limited	REFURBISHED LAPTOP DELL LATITUDE 5400, 14 inch...	18999.0	New Delhi	3.7
37	laptops	PP Tech Global Innovations LLP	Hp Laptop 250 G8, Core i5	55000.0	New Delhi	3.8
38	laptops	Krishna Laptop	Lenovo Laptop V14	35900.0	Mumbai	5.0
47	textiles	Garg Rexine & Foam	Velvet	560.0	Patna	4.0
50	iphone	Hello Friends	Pink Iphone 13 Mini	31500.0	Patna	3.6
51	iphone	Yantram	Silver Iphone 13 128gb	46400.0	Chapra	3.6
55	iphone	Crimson Communicare LLP	Multicolor iphone 15 pro max	159900.0	Gurugram	3.7
56	iphone	M And J Trading Company	Apple iPhone 14 Pro like new 100% battery	52000.0	New Delhi	4.0
57	iphone	3comma Labs Private Limited	Apple Iphone	55000.0	Bengaluru	4.0
68	memory	Decsus Technology	4GB DDR3 Ram	620.0	Patna	5.0
69	memory	Demands And Deals Private Limited	DDR3 Laptop Ram, Memory Size: 4 GB	1299.0	Patna	3.2
70	memory	Cyborg Infotech	Computer RAM	1000.0	Patna	3.6
72	memory	Mainframe Technologies	RAM	400.0	Patna	3.6
75	memory	P K Enterprises	Irvine 8GB DDR4 2666MHz Desktop RAM, 4 Channel	4500.0	Varanasi	2.6
76	memory	Three Star Engineering & Consultancy	ASUS Rx 580 Graphics Card	8500.0	Patna	4.8
79	memory	Laptop Gadget	Hynix SDRAM 8gb Ddr3 Laptop Ram	1299.0	Benipur	3.0
86	memory	Ayushi Life Sciences	Multi berry capsule	305.0	Vaishali	5.0
			Windows Intel Core I5 4570 Cpu Processor			

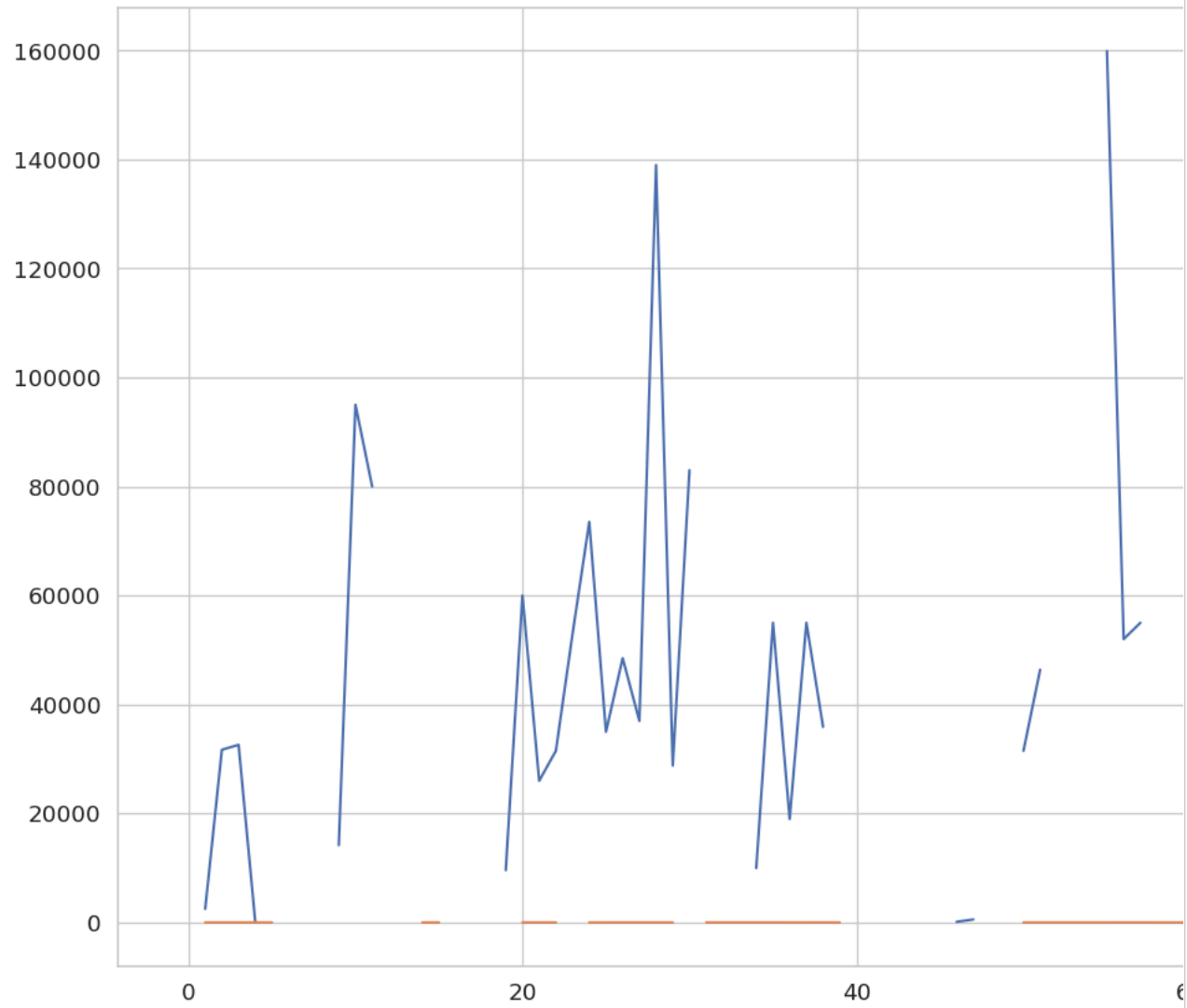
```
df.columns
```

```
Index(['Keyword', 'Company', 'Name', 'Price', 'Location', 'Rating'], dtype='object')
```

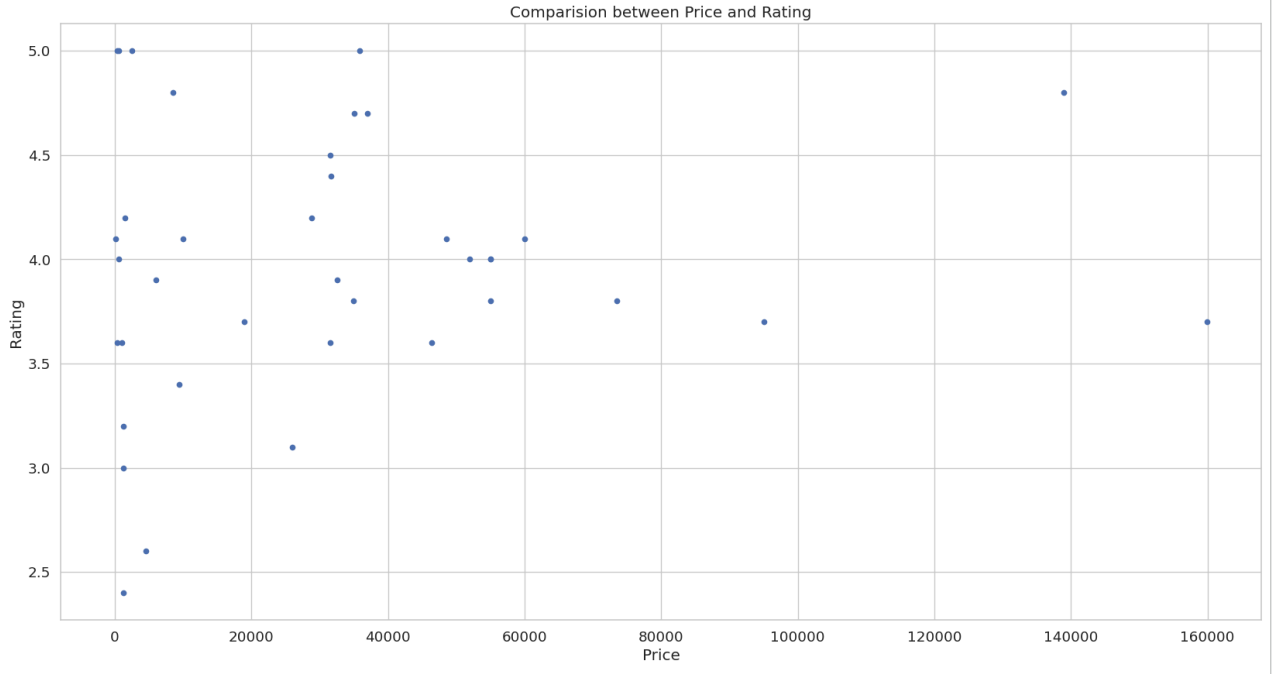
Visualization

```
df.plot()
```

```
<Axes: >
```

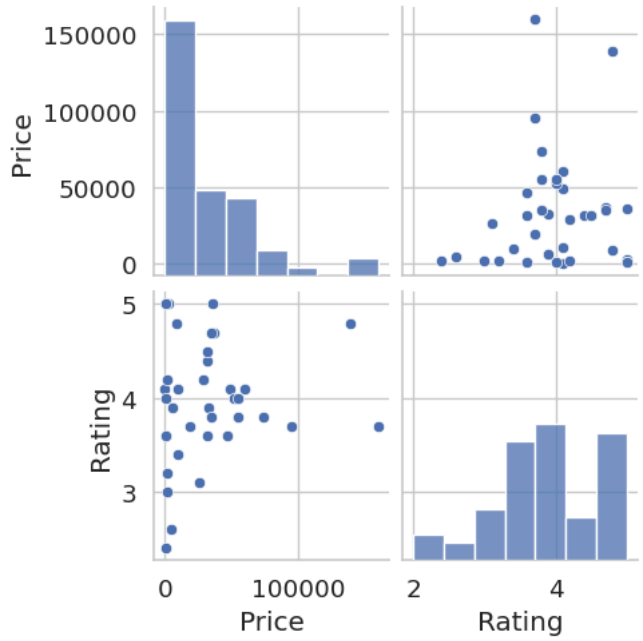



```
df.plot(x='Price', y='Rating', kind='scatter')
plt.title('Comparision between Price and Rating')
plt.xlabel('Price')
plt.ylabel('Rating')
plt.show()
```



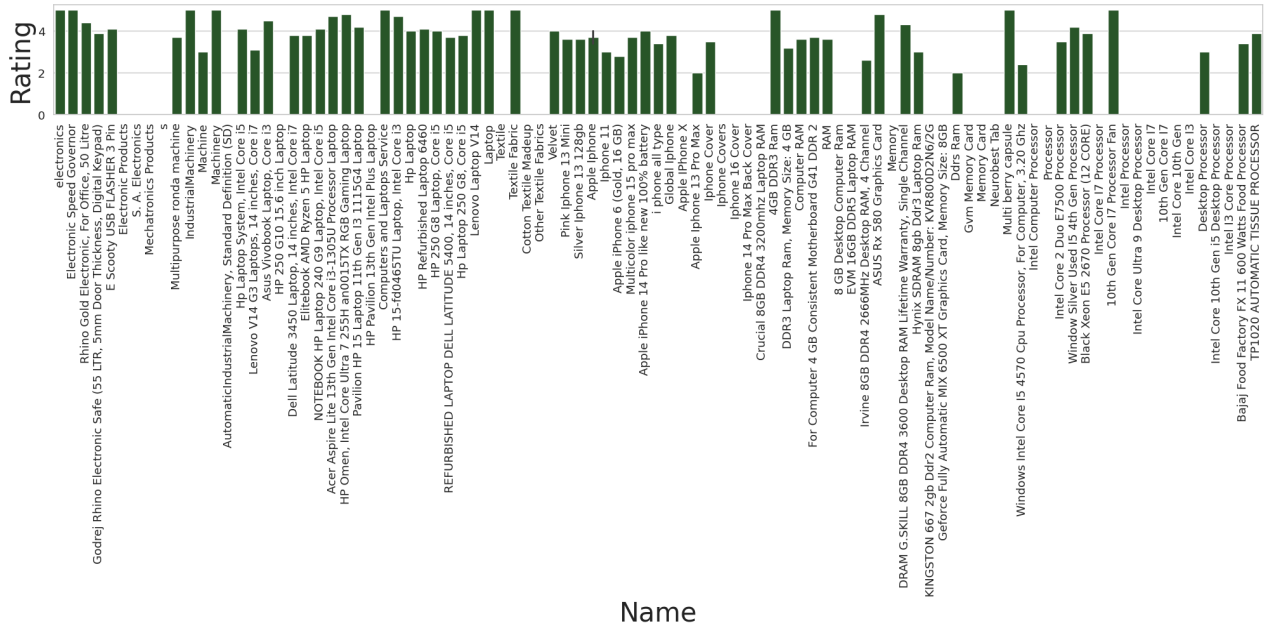
```
sns.pairplot(df)
```

```
<seaborn.axisgrid.PairGrid at 0x7a9823dd5940>
```

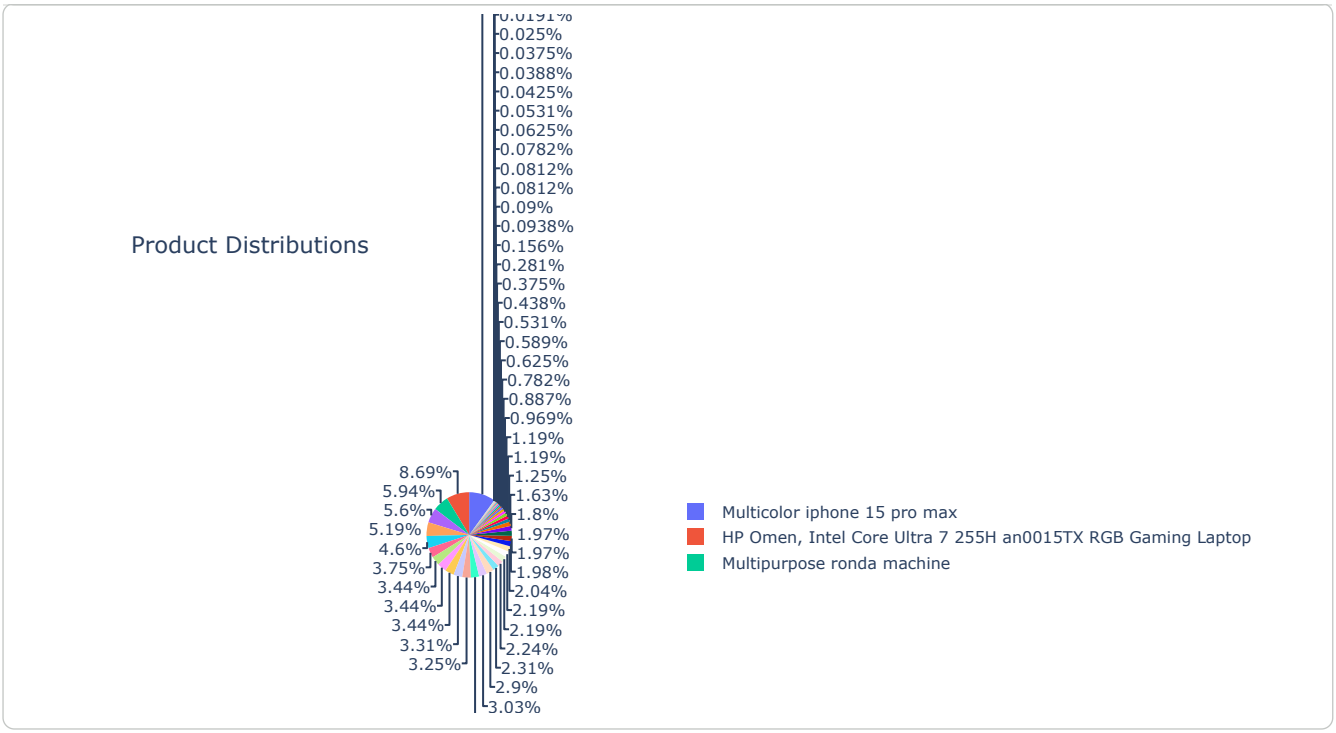



```
sns.set(style="whitegrid", font_scale=1.2, rc={"figure.figsize":(20,10)})
sns.barplot(data=df,x = 'Name', y = 'Rating',color='green',saturation=0.35)
plt.xticks(rotation=90)
plt.tight_layout()
plt.xlabel('Name',fontsize=30)
plt.ylabel('Rating',fontsize=30)
```

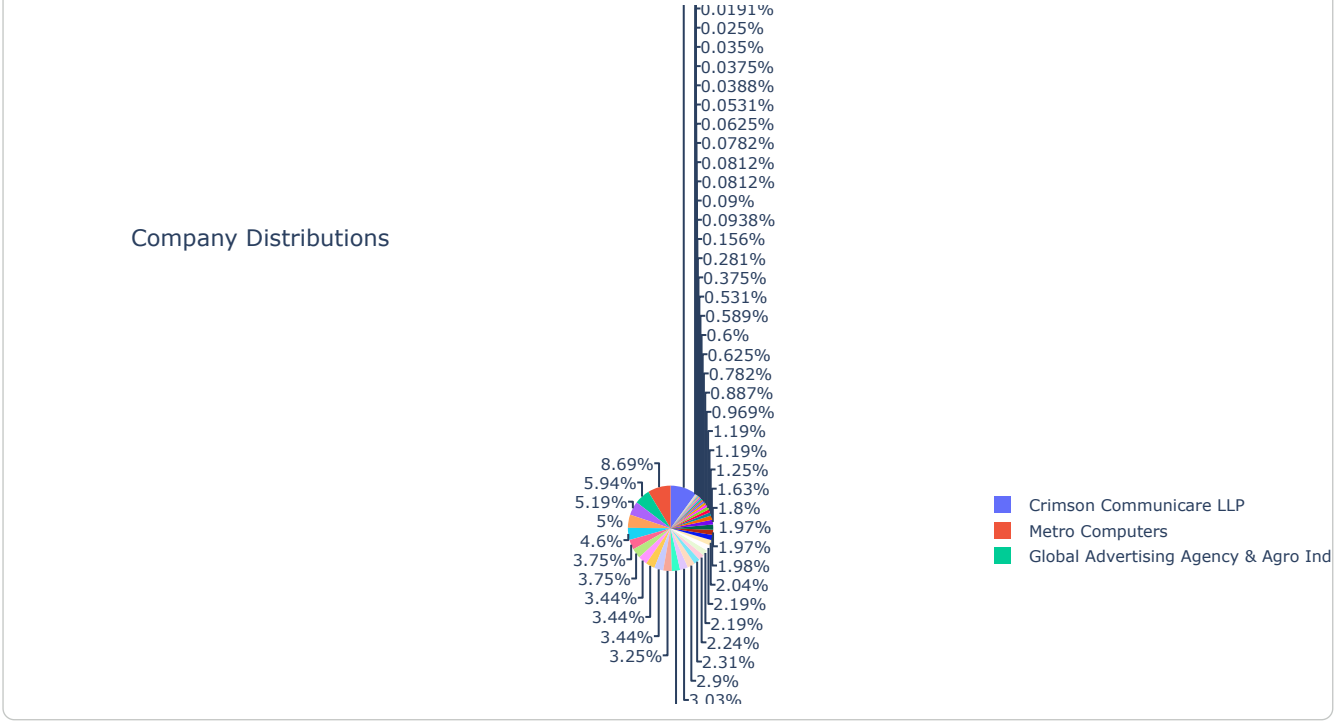
```
Text(219.5, 0.5, 'Rating')
```



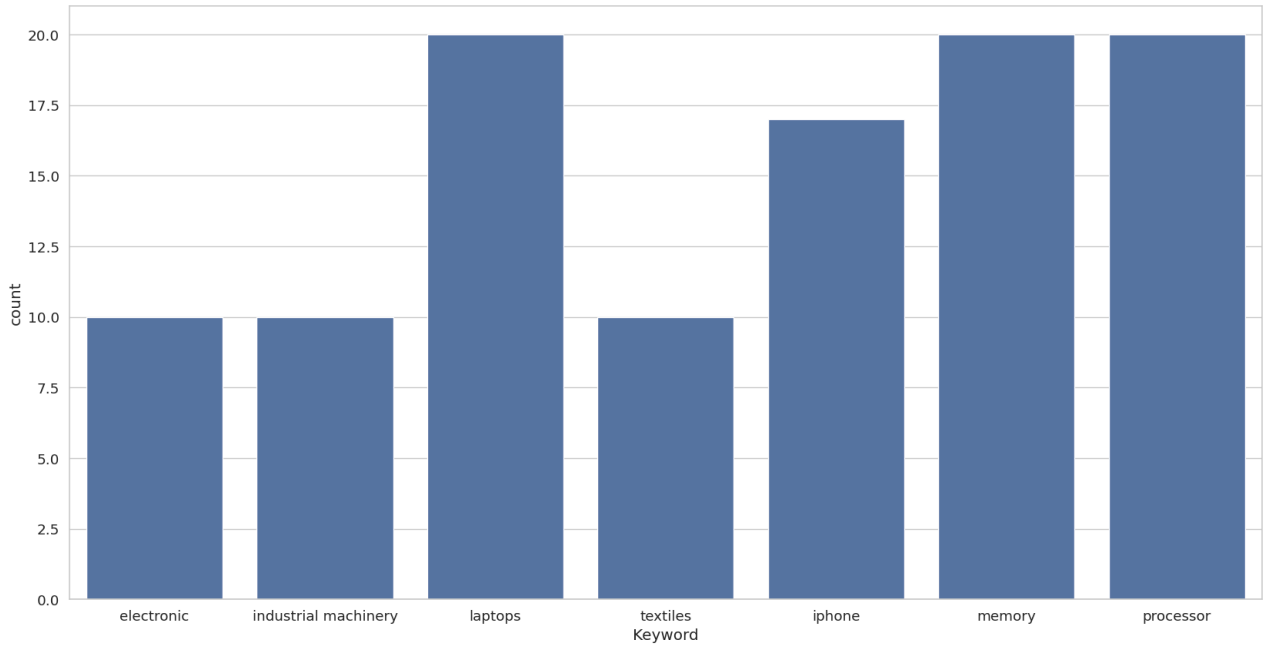

```
import plotly.graph_objs as go

# Create a trace
trace = go.Pie(labels=df['Name'], values=df['Price'])

# Create a layout
layout = go.Layout(title='Product Distributions')

# Create a figure
fig = go.Figure(data=[trace], layout=layout)

# Show the figure
fig.show()
```




```
# Create a trace
trace = go.Pie(labels=df['Company'], values=df['Price'])

# Create a layout
layout = go.Layout(title='Company Distributions')

# Create a figure
fig = go.Figure(data=[trace], layout=layout)

# Show the figure
fig.show()
```

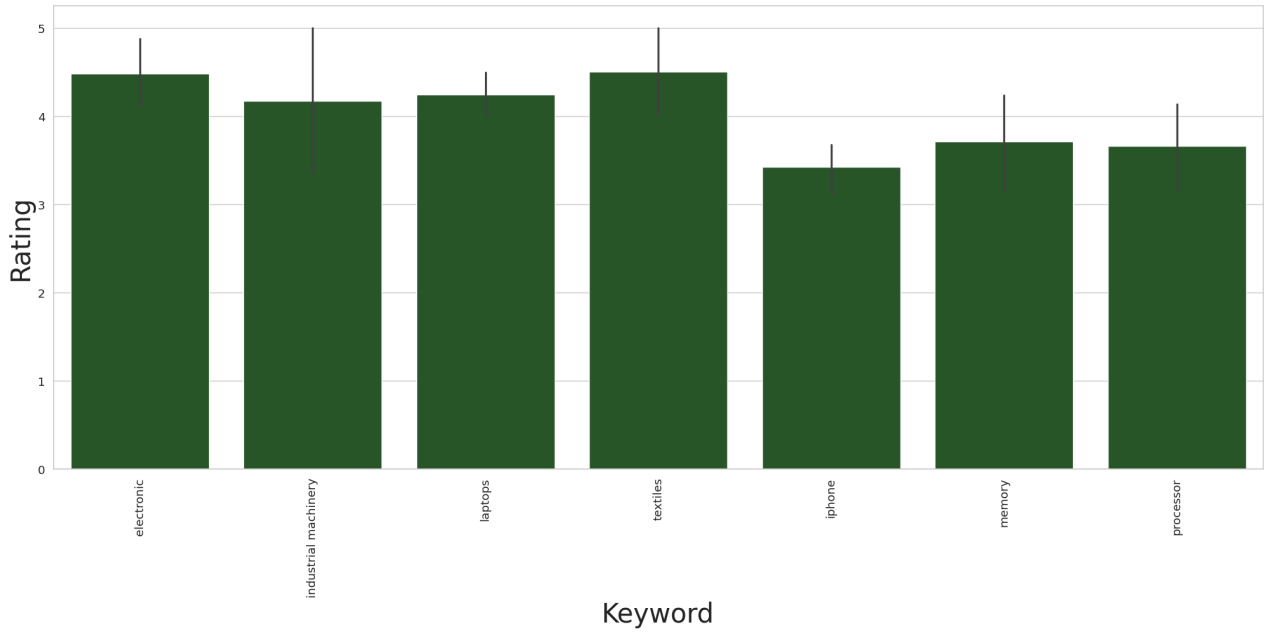



```
# Show the plot
sns.countplot(x ='Keyword', data = df)
plt.show()
```




```
sns.set(style="whitegrid", font_scale=1.2, rc={"figure.figsize":(20,10)})
sns.barplot(data=df,x = 'Keyword', y = 'Rating',color='green',saturation=0.35)
plt.xticks(rotation=90)
plt.tight_layout()
plt.xlabel('Keyword',fontsize=30)
plt.ylabel('Rating',fontsize=30)
```

```
Text(219.5, 0.5, 'Rating')
```



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