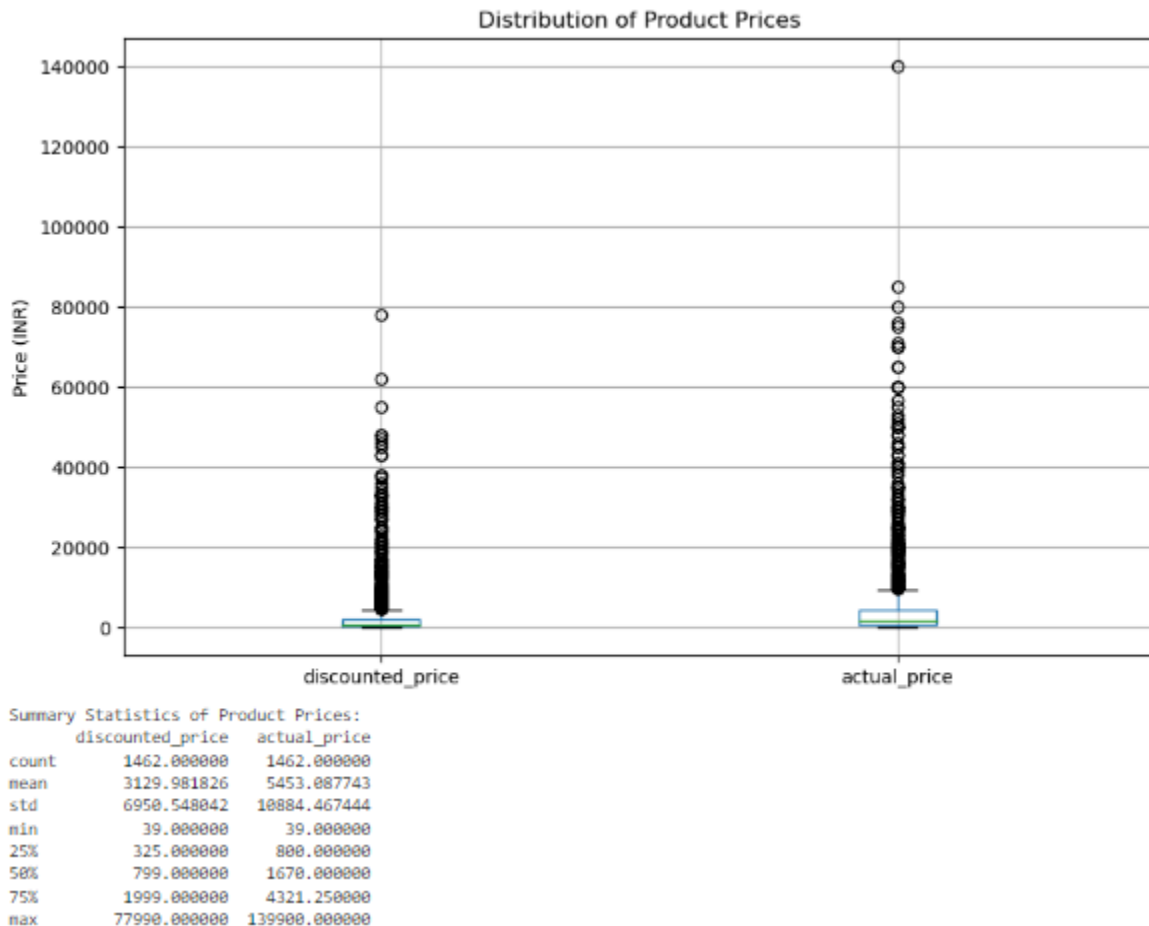


AMAZON “EDA” INSIGHT

GRAPH BOOK

1. How are product prices distributed, and are there notable outliers?

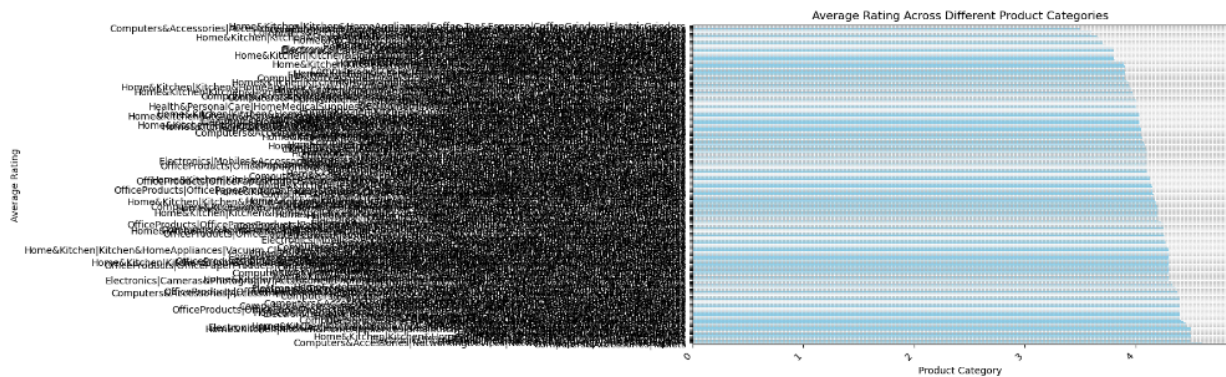


2. What is the average rating across different product categories?

Average Rating Across Different Product Categories:

category	
Car&Motorbike CarAccessories InteriorAccessories AirPurifiers&Ionizers	3.800000
Computers&Accessories Accessories&Peripherals Adapters USBtoUSBAdapters	4.150000
Computers&Accessories Accessories&Peripherals Audio&VideoAccessories PCHeadsets	3.500000
Computers&Accessories Accessories&Peripherals Audio&VideoAccessories PCMicrophones	3.600000
Computers&Accessories Accessories&Peripherals Audio&VideoAccessories PCSpeakers	4.050000
...	
OfficeProducts OfficePaperProducts Paper Stationery Pens,Pencils&WritingSupplies Pens&Refills GelInkRollerballPens	4.250000
OfficeProducts OfficePaperProducts Paper Stationery Pens,Pencils&WritingSupplies Pens&Refills LiquidInkRollerballPens	4.150000
OfficeProducts OfficePaperProducts Paper Stationery Pens,Pencils&WritingSupplies Pens&Refills RetractableBallpointPens	4.300000
OfficeProducts OfficePaperProducts Paper Stationery Pens,Pencils&WritingSupplies Pens&Refills StickBallpointPens	4.133333
Toys&Games Arts&Crafts Drawing&PaintingSupplies ColouringPens&Markers	4.300000

Name: rating, Length: 211, dtype: float64

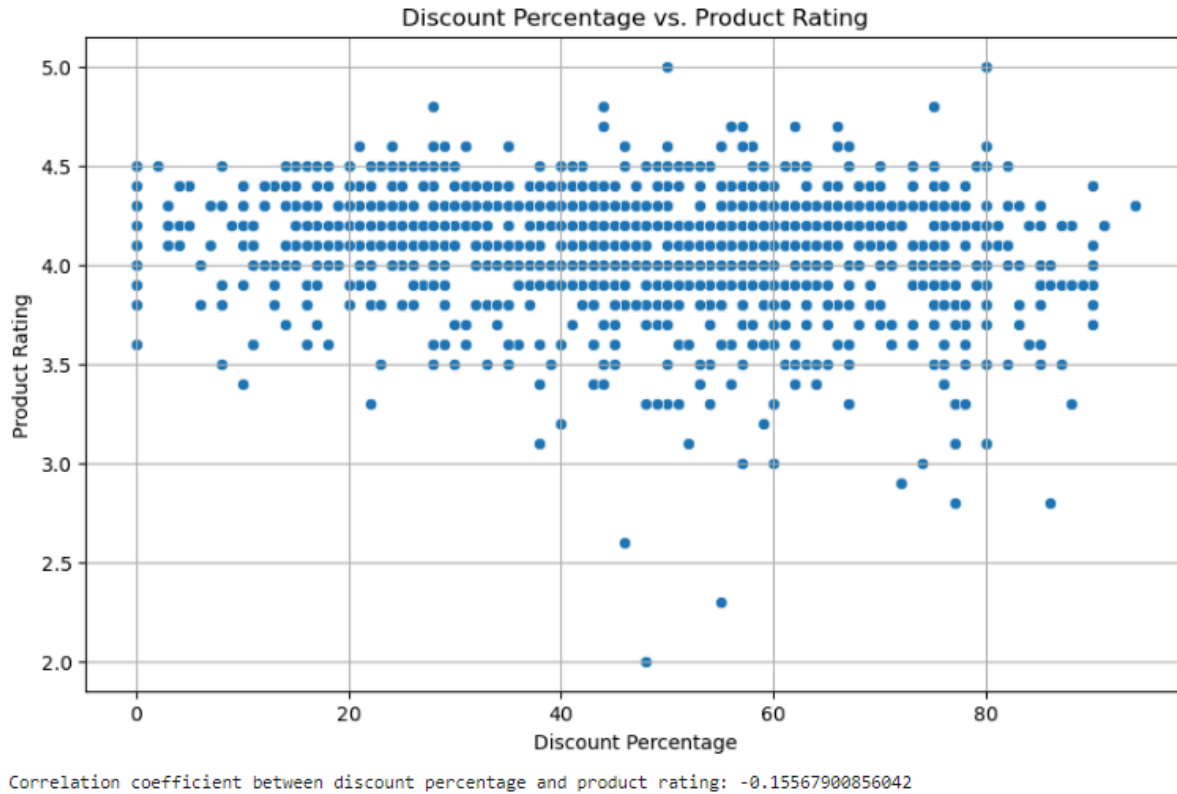


Average Rating Across Different Product Categories:

category	
Computers&Accessories Tablets	4.6
Computers&Accessories NetworkingDevices NetworkAdapters PowerLANAdapters	4.5
Electronics Cameras&Photography Accessories Film	4.5
Electronics HomeAudio MediaStreamingDevices StreamingClients	4.5
OfficeProducts OfficeElectronics Calculators Basic	4.5
...	
Computers&Accessories Accessories&Peripherals Audio&VideoAccessories PCMicrophones	3.6
Electronics HomeTheater,TV&Video Accessories 3DGlasses	3.5
Computers&Accessories Accessories&Peripherals Audio&VideoAccessories PCHeadsets	3.5
Computers&Accessories Accessories&Peripherals Keyboards,Mice&InputDevices Keyboard&MiceAccessories DustCovers	3.4
Home&Kitchen Kitchen&HomeAppliances Coffee,Tea&Espresso CoffeeGrinders ElectricGrinders	3.3

Name: rating, Length: 211, dtype: float64

3. Is there a correlation between discount percentage and product rating?



4. What are the top 5 most reviewed products, and what insights do their reviews offer?

Top 5 Most Reviewed Products:

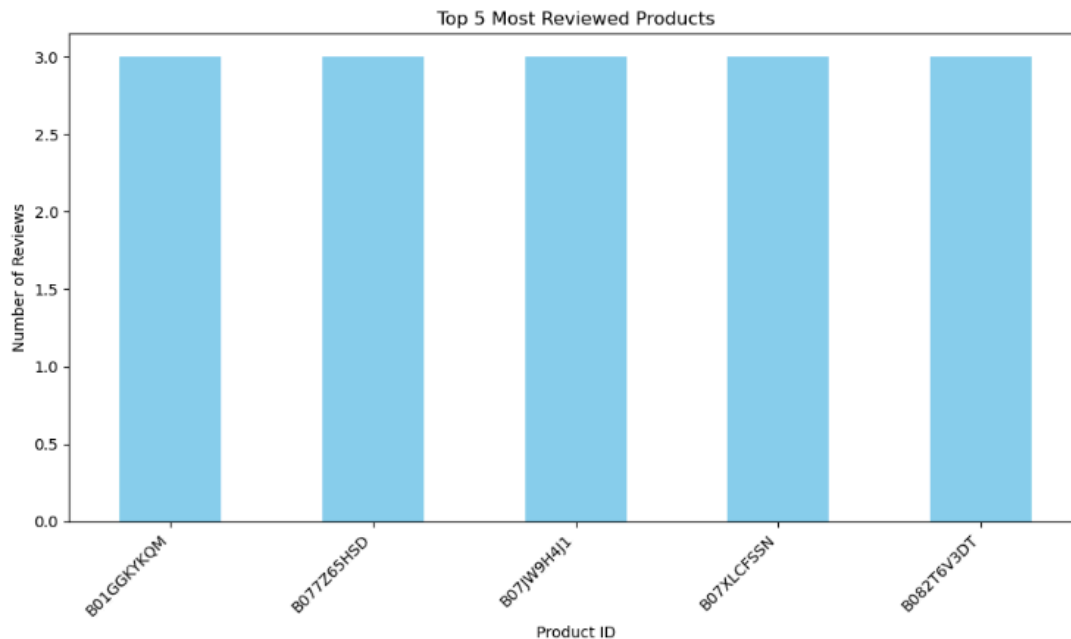
Amazon Basics USB Type-C to USB-A 2.0 Male Fast Charging Cable for Laptop - 3 Feet (0.9 Meters), Black: 3 reviews

boAt A400 USB Type-C to USB-A 2.0 Male Data Cable, 2 Meter (Black): 3 reviews

Wayona Nylon Braided USB to Lightning Fast Charging and Data Sync Cable Compatible for iPhone 13, 12, 11, X, 8, 7, 6, 5, iPad Air, Pro, Mini (3 FT Pack of 1, Grey): 3 reviews

AmazonBasics Nylon Braided USB-C To Lightning Cable, Fast Charging MFi Certified Smartphone, iPhone Charger (6-Foot, Dark Grey): 3 reviews

AmazonBasics New Release Nylon USB-A to Lightning Cable Cord, Fast Charging MFi Certified Charger for Apple iPhone, iPad (6-Ft, Rose Gold): 3 reviews



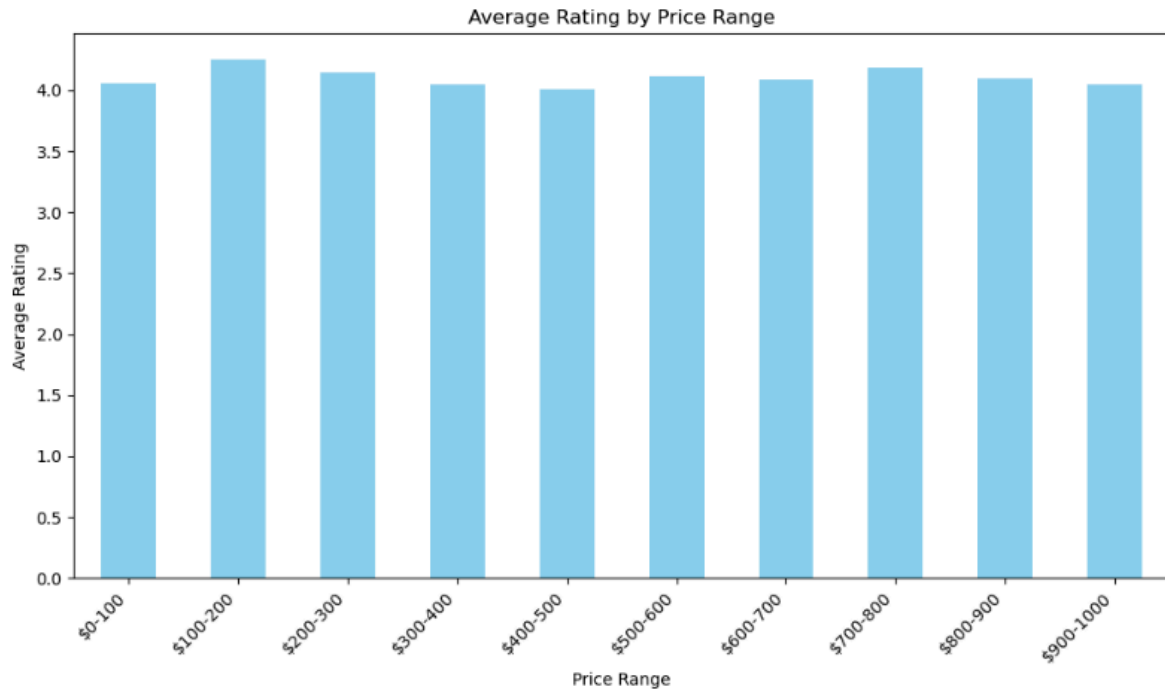
5.Are certain product categories more frequently discounted?

Frequency of Discounts by Product Category:

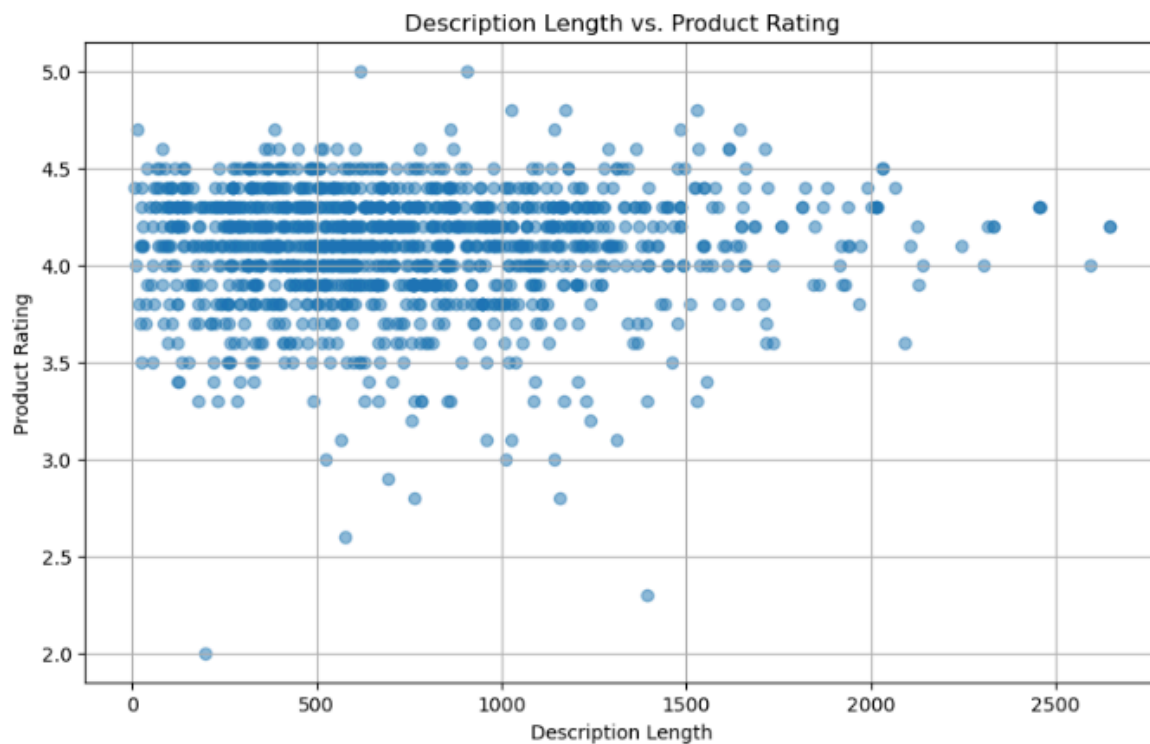
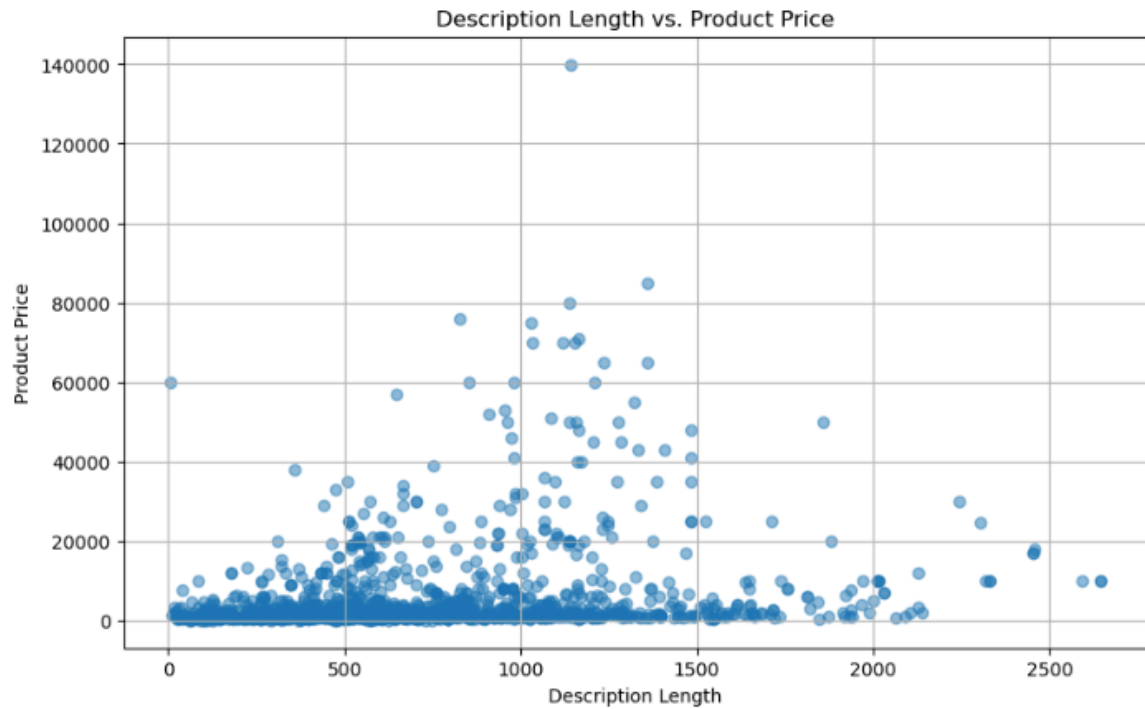
category	
Car&Motorbike CarAccessories InteriorAccessories AirPurifiers&Ionizers	100.0
Home&Kitchen Heating,Cooling&AirQuality Parts&Accessories FanParts&Accessories	100.0
Home&Kitchen CraftMaterials DrawingMaterials DrawingMedia Pens	100.0
Home&Kitchen CraftMaterials Scrapbooking Tape	100.0
Home&Kitchen Heating,Cooling&AirQuality AirConditioners Split-SystemAirConditioners	100.0
...	
OfficeProducts OfficeElectronics Calculators Basic	0.0
Home&Kitchen Kitchen&HomeAppliances SmallKitchenAppliances SmallApplianceParts&Accessories StandMixerAccessories	0.0
Home&Kitchen CraftMaterials PaintingMaterials	0.0
Electronics Cameras&Photography Accessories Film	0.0
Toys&Games Arts&Crafts Drawing&PaintingSupplies ColouringPens&Markers	0.0

Name: discount_percentage, Length: 211, dtype: float64

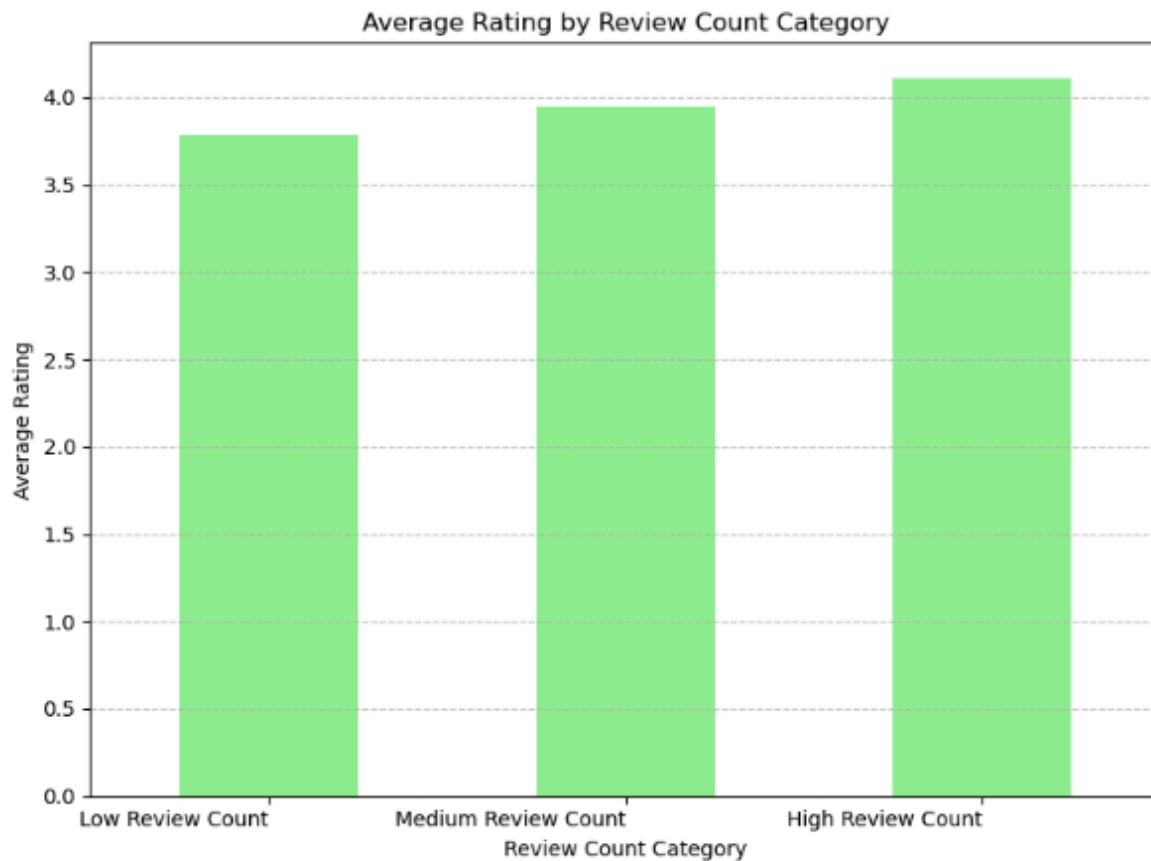
6.Do higher-priced products tend to receive higher ratings?



7. Is there a relationship between description length and price or rating?

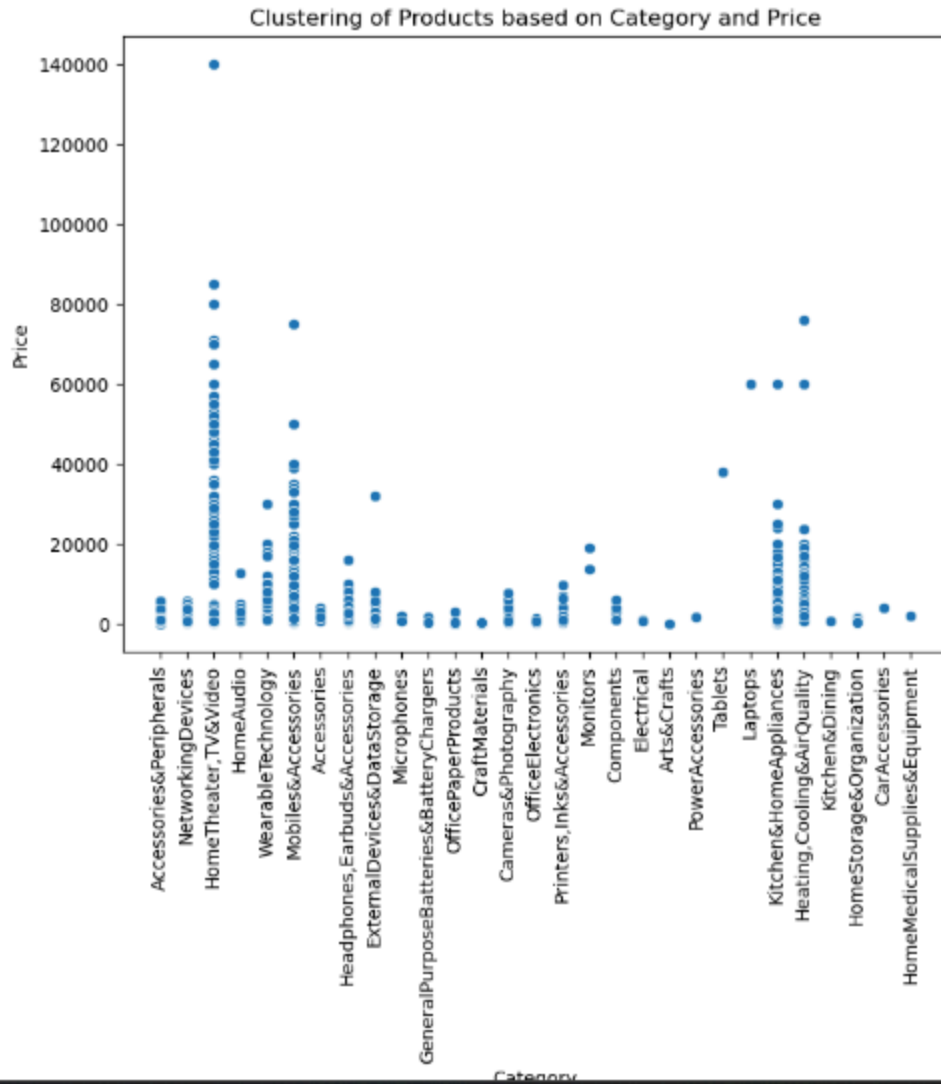


8. How do ratings differ between products with high and low review counts?



```
Average Rating by Review Count Category:  
review_count_category  
Low Review Count      3.781818  
Medium Review Count    3.949188  
High Review Count      4.105683  
Name: rating, dtype: float64
```

9.Can products be clustered based on features and pricing?

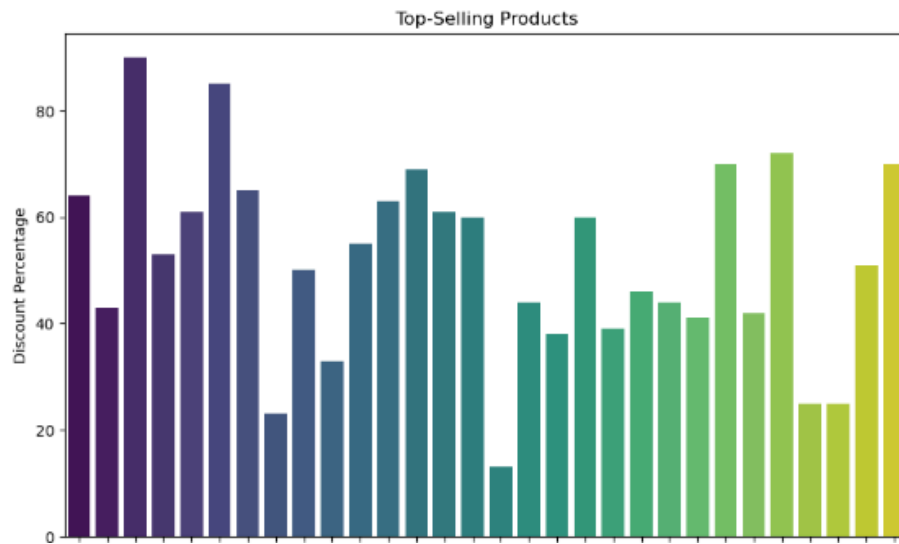


10. How does the discount percentage vary across different brands?

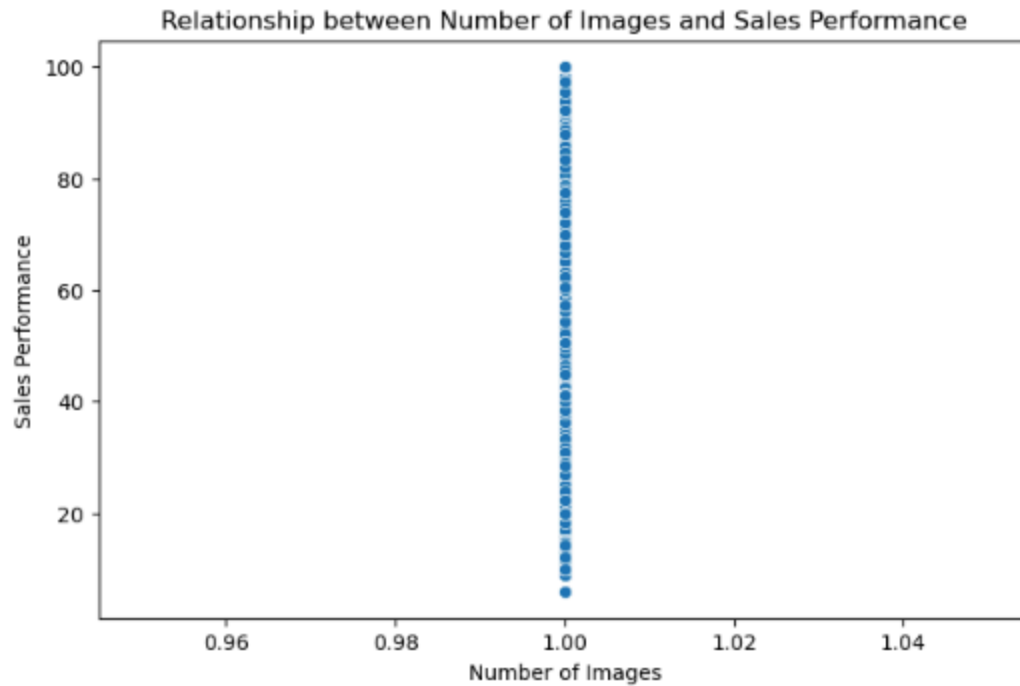

```
[22]: top_products = data['pro_name'].value_counts().head(30)
      dp=data['discount_percentage'].head(30)

      # Plotting

      plt.figure(figsize=(10,6))
      sns.barplot(x=top_products.index, y=dp, palette='viridis')
      plt.title('Top-Selling Products')
      plt.xlabel('Product Name')
      plt.ylabel('Discount Percentage')
      plt.xticks(rotation=90)
      plt.show()
```



11. Is there a relationship between the number of images and sales performance?



12.What are common keywords or phrases in product titles or descriptions?

[22]:

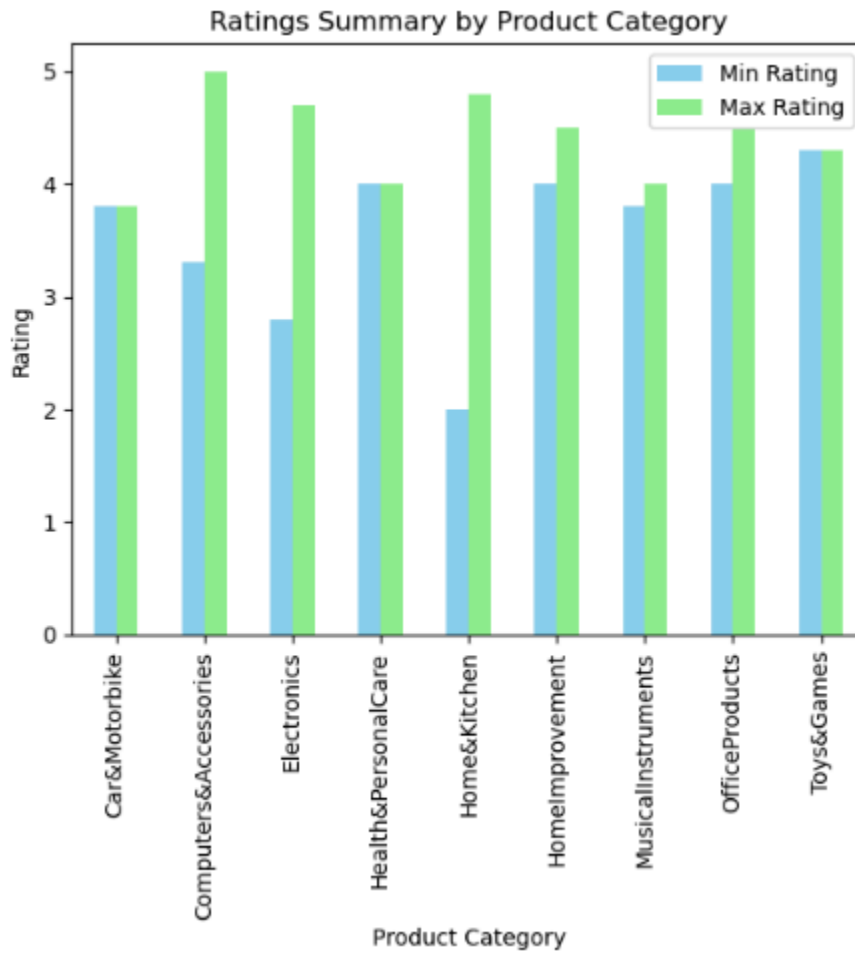
	product_name
0	Wayona Nylon Braided USB to Lightning Fast Cha...
1	Ambrane Unbreakable 60W / 3A Fast Charging 1.5...
2	Sounce Fast Phone Charging Cable & Data Sync U...
3	boAt Deuce USB 300 2 in 1 Type-C & Micro USB S...
4	Portronics Konnect L 1.2M Fast Charging 3A 8 P...
...	...
1460	Noir Aqua - 5pcs PP Spun Filter + 1 Spanner ...
1461	Prestige Delight PRWO Electric Rice Cooker (1 ...
1462	Bajaj Majesty RX10 2000 Watts Heat Convector R...
1463	Havells Ventil Air DSP 230mm Exhaust Fan (Pist...
1464	Borosil Jumbo 1000-Watt Grill Sandwich Maker (...)

1462 rows × 1 columns

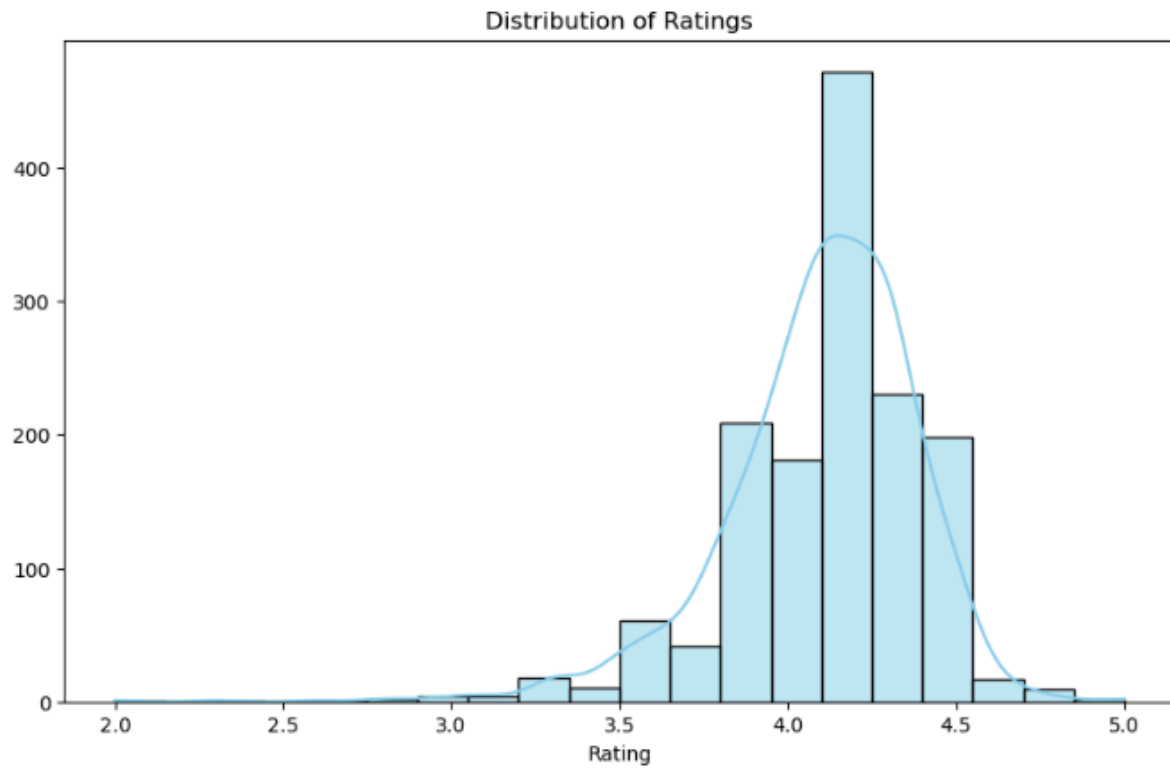
```
with      749
for       671
usb       377
and       329
cable     318
charging  217
to        214
fast      209
c         179
smart     171
Name: count, dtype: int64
```

These are the most common Keywords.

13.Can product rating be predicted based on features and category?

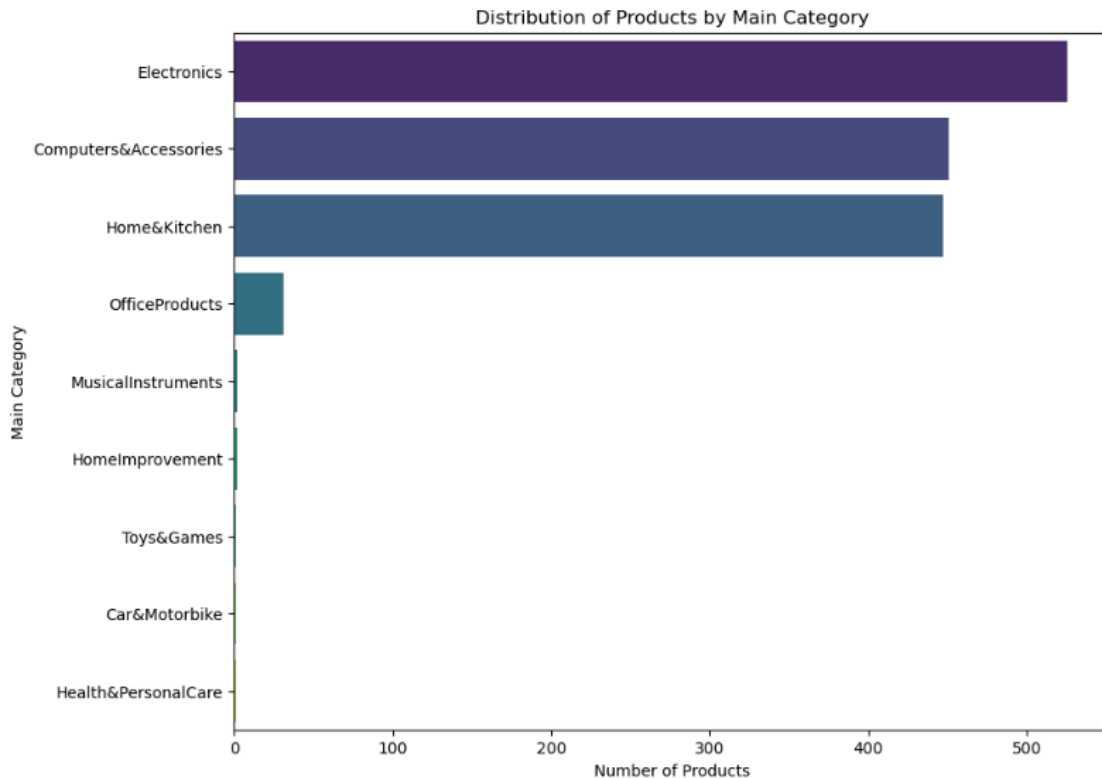


RATING DISTRIBUTION

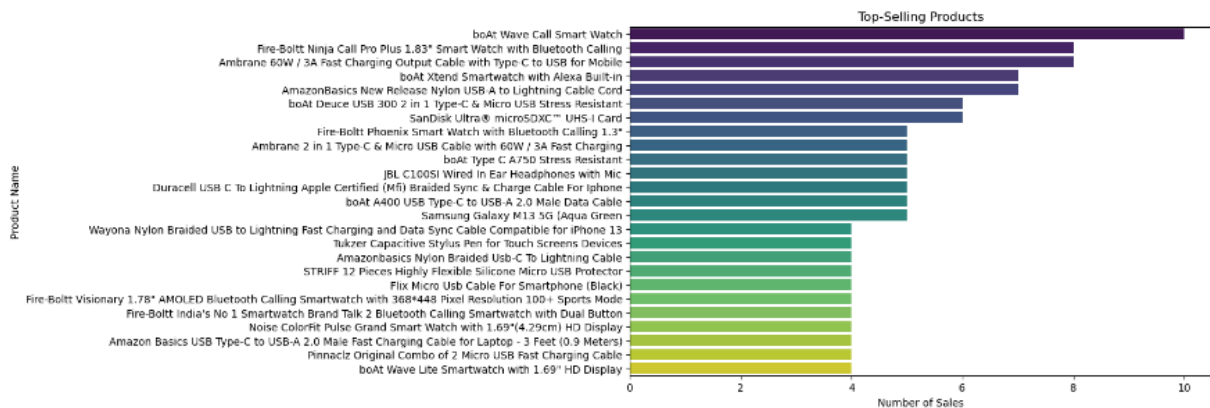


Product Category Distriution:

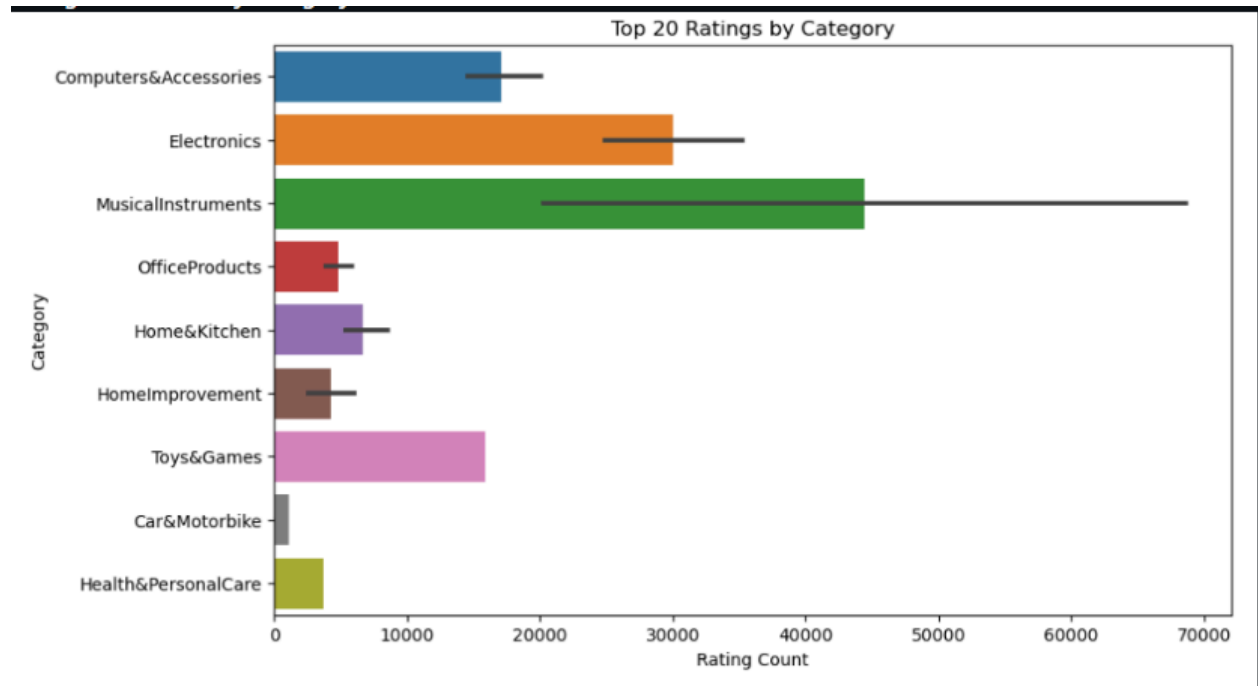
PRODUCT CATEGORY DISTRIBUTION



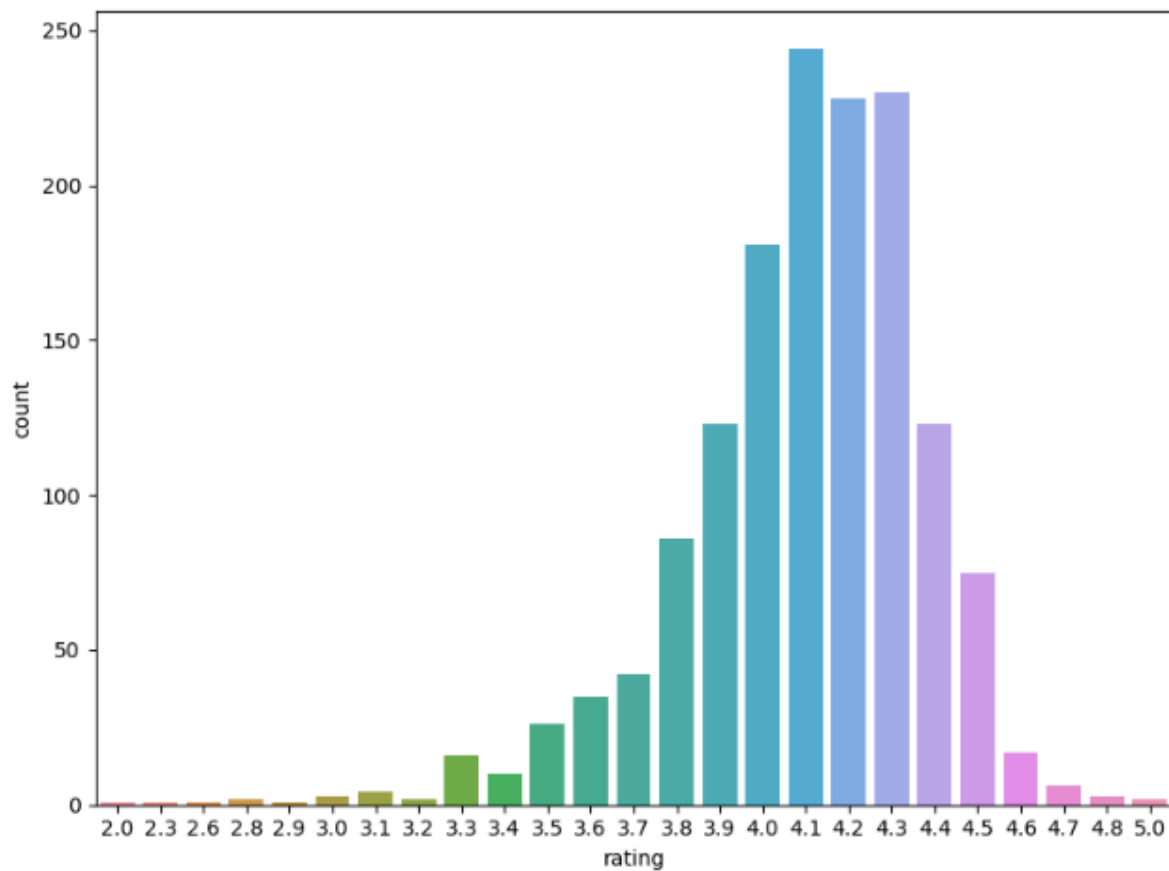
Top Selling Products



Rating Distribution by Category



Rating Count



RATING WORD CLOUD



