

Amazon Sales Data Analysis



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Introduction

A large, thick, orange swoosh graphic that starts on the left side of the slide, curves upwards and to the right, and then curves downwards and to the right, ending near the top right corner. It has a smooth, flowing appearance.

In the highly competitive realm of e-commerce, gaining insights into product performance is essential for making informed strategic decisions. This presentation offers an in-depth analysis of the Amazon products dataset, aiming to uncover key insights into pricing strategies, customer ratings, and review patterns. By examining these factors, we can identify trends and actionable insights that will aid in optimizing product listings, enhancing customer satisfaction, and driving overall business growth. This analysis not only reflects the current state of the products but also provides recommendations for future enhancements.

Dataset Description

- ❑ Product id: Unique identifier for each product
- ❑ Product name: Name of the product category: Product category
- ❑ Discounted price: Price after discount
- ❑ Actual price: Original price
- ❑ Rating : Product rating
- ❑ Rating count: Number of ratings
- ❑ About product: Product description
- ❑ User id: Unique identifier for each user
- ❑ User name: Name of the user
- ❑ Review id: Unique identifier for each review
- ❑ Review title: Title of the review
- ❑ Review content: Content of the review
- ❑ Image link: Link to the product image
- ❑ Product link: Link to the product page



amazon

The Amazon logo is centered on the right side of the slide. It consists of the word "amazon" in a black, lowercase, sans-serif font. Below the text is the iconic orange curved arrow that points from the 'a' to the 'z'. The entire logo is flanked by two thick, orange diagonal bars, one above and one below, creating a stylized frame.

Data Cleaning

- ❖ Effective data analysis starts with meticulous data cleaning and preparation. In this phase, we addressed missing values by employing appropriate imputation techniques to ensure completeness.
- ❖ Duplicate entries were identified and removed to maintain data integrity.
- ❖ Outliers, which can skew analysis and lead to inaccurate conclusions, were detected and managed appropriately.
- ❖ These steps were crucial to enhancing the quality of the dataset, ensuring that the subsequent analysis is both accurate and reliable. This rigorous process set a solid foundation for extracting meaningful insights from the data.
- ❖ Tools
 - Microsoft Excel (Power Query editor)
 - Power Bi
 - My SQL
 - Python

Category Distribution Analysis

Overview

- Overview of the distribution of Products across different categories

Visual Representation

- Visual representation through a bar chart illustrating the distribution of products in various categories.

Significance of Product distribution

- Analysis of the significance of category distribution in understanding the product landscape.

Price analysis

Distribution of Prices

- Distribution of Discounted prices and actual prices in the datasets.
- Histograms illustrating the distribution of discounted prices and actual prices.

Price Relationship analysis

- Visual representation through a bar chart illustrating the distribution of products in various categories.

Key pricing Insights

- Key insights on pricing trends and their implications for product strategy and marketing decisions.

Discount analysis

Discount Percentage analysis

- Analysis of discount percentage across products Visuals representation.
Box plot illustrating the distribution of discount percentages.

Impact of Discounts

- Insights into the impact of discounts on product sales.
- Insights into the impact of discounts on customer behaviour.

Rating Distribution Analysis

Overview of the distribution of product ratings in the dataset.

- Introduction to the dataset
- Explanation of rating scale
- Summary of overall rating distribution

Analysis of the spread of ratings across different products

- Comparison of ratings among top products
- Identification of products with highest and lowest ratings
- Discussion of factors influencing rating spread.

Visualization: Histogram showing the distribution of product ratings

- Description of histogram
- Key observations from the histogram
- Interpretation of data visualized

Insights into the average and frequency of ratings given by customers

- Analysis of most common ratings
- Examination of rating frequency
- Insights into customer satisfaction levels

Understanding the distribution pattern to identify trends in customer satisfaction levels

- Identification of trends in customer satisfaction
- Correlation between rating distribution and product features
- Implications for product improvement

Top-Rated Products

List of Top-Rated Products

- Products with the highest ratings based on the dataset analysis.

Key Characteristics and Features

- Characteristics of the top-rated products identified in the dataset.
- Features that make these products stand out.

Factors Contributing to High Ratings

- Insights into the factors contributing to the high ratings of these products.

Comparison of Top-Rated Products

- Comparison metrics of ratings, price, and customer reviews.

Implications on Strategy and Marketing

- Implications of the top-rated products on product strategy.
- Impact on marketing decisions.

Review Content Analysis

Commonalities and Differences

- Analysis of commonalities and differences found in customer reviews.
- Identification of frequently mentioned terms and phrases in the review content.
- **Like:- Looks durable, Build Quality is good.**

Visualization of Review Content

- Visualization showcasing a word cloud of the most frequently used terms in the reviews.

Impact on Product Ratings and Engagement

- Insights into the factors contributing to the high ratings of the product and the impact of review content on product ratings and customer engagement.
- Examination of the relationship between review sentiment and product success.

Summary of Key Findings

- Summary of key findings from the review content analysis.

Market Share

Market share measures a company's sales percentage within an industry, reflecting its competitive standing. Companies with higher market shares benefit from economies of scale, brand recognition, and customer loyalty. Analyzing market share reveals a company's market position, strategy effectiveness, and improvement areas, guiding resource allocation and marketing decisions. In dynamic markets, sustaining or growing market share is crucial for long-term success and competitiveness.



Select product_id, product_name, category From Amazon;

List all products with their product id,
product → name, and category

	product_id	product_name	category
▶	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	Computers&Accessories Accessories&Peripheral...
	B098NS6PVG	Ambrane Unbreakable 60W / 3A Fast Charging ...	Computers&Accessories Accessories&Peripheral...
	B096MSW6CT	Source Fast Phone Charging Cable & Data Sync...	Computers&Accessories Accessories&Peripheral...
	B08HDJ86NZ	boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	Computers&Accessories Accessories&Peripheral...
	B08CF3B7N1	Portronics Konnect L 1.2M Fast Charging 3A 8 P...	Computers&Accessories Accessories&Peripheral...
	B08Y1TFSP6	pTron Solero TB301 3A Type-C Data and Fast C...	Computers&Accessories Accessories&Peripheral...
	B08WRWPM22	boAt Micro USB 55 Tangle-free, Sturdy Micro US...	Computers&Accessories Accessories&Peripheral...
	B08DDRGWTJ	MI Usb Type-C Cable Smartphone (Black)	Computers&Accessories Accessories&Peripheral...
	B008IFXQFU	TP-Link USB WiFi Adapter for PC(TL-WN725N), ...	Computers&Accessories NetworkingDevices Ne...
	B082LZGK39	Ambrane Unbreakable 60W / 3A Fast Charging ...	Computers&Accessories Accessories&Peripheral...
	B08CF3D7QR	Portronics Konnect L POR-1081 Fast Charging 3...	Computers&Accessories Accessories&Peripheral...
	B0789LZTCJ	boAt Rugged v3 Extra Tough Unbreakable Braid...	Computers&Accessories Accessories&Peripheral...
	B07KSMBL2H	AmazonBasics Flexible Premium HDMI Cable (Bla...	Electronics HomeTheater,TV&Video Accessories...
	B085DTN6R2	Portronics Konnect CL 20W POR-1067 Type-C t...	Computers&Accessories Accessories&Peripheral...
	B09KLVZ3B	Portronics Konnect L 1.2M POR-1401 Fast Char...	Computers&Accessories Accessories&Peripheral...
	B083342NKJ	MI Braided USB Type-C Cable for Charging Ada...	Computers&Accessories Accessories&Peripheral...
	B086F7LX4C	MI 80 cm (32 inches) 5A Series HD Ready Smart...	Electronics HomeTheater,TV&Video Televisions ...
	B082LSVT4B	Ambrane Unbreakable 60W / 3A Fast Charging ...	Computers&Accessories Accessories&Peripheral...
	B08WRBG3XW	boAt Type C A325 Tangle-free, Sturdy Type C ...	Computers&Accessories Accessories&Peripheral...
	B08DPLCM6T	LG 80 cm (32 inches) HD Ready Smart LED TV 3...	Electronics HomeTheater,TV&Video Televisions ...
	B09C6HXFC1	Duracell USB Lightning Apple Certified (Mfi) Brai...	Computers&Accessories Accessories&Peripheral...
	B085194JFL	tizum HDMI to VGA Adapter Cable 1080P for Pr...	Electronics HomeTheater,TV&Video Accessories...
	B09F6S8BT6	Samsung 80 cm (32 Inches) Wondertainment Se...	Electronics HomeTheater,TV&Video Televisions ...
	B09NHVCHS9	Flix Micro Usb Cable For Smartphone (Black)	Computers&Accessories Accessories&Peripheral...
	B0B1YVCJ2Y	Acer 80 cm (32 inches) I Series HD Ready Andr...	Electronics HomeTheater,TV&Video Televisions ...
	B01M4GGIVU	Tizum High Speed HDMI Cable with Ethernet S...	Electronics HomeTheater,TV&Video Accessories...
	B08B42LWKN	OnePlus 80 cm (32 inches) Y Series HD Ready L...	Electronics HomeTheater,TV&Video Televisions ...
	B0941NXPV	Ambrane Unbreakable 3 in 1 Fast Charging Brai...	Computers&Accessories Accessories&Peripheral...

KisplaQ all col"m→is roí pód"cts tka
ka:c a íati→g or 4.0 oí kigkcí

Select * From Amazon Where rating >= 4;

	product_id	product_name	category	discounted_price	actual_price	discount_percentage	rating	rating_count
▶	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	Computers&Accessories Accessories&Peripheral...	399	1099	0.64	4.4	24269
	B098NS6PVG	Ambrane Unbreakable 60W / 3A Fast Charging ...	Computers&Accessories Accessories&Peripheral...	199	349	0.43	4	43994
	B08HDJ86NZ	boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	Computers&Accessories Accessories&Peripheral...	329	699	0.53	4.2	94363
	B08CF3B7N1	Portronics Konnect L 1.2M Fast Charging 3A 8 P...	Computers&Accessories Accessories&Peripheral...	154	399	0.61	4.2	16905
	B08WRWPM22	boAt Micro USB 55 Tangle-free, Sturdy Micro US...	Computers&Accessories Accessories&Peripheral...	176.63	499	0.65	4.1	15188
	B08DDRGWTJ	MI Usb Type-C Cable Smartphone (Black)	Computers&Accessories Accessories&Peripheral...	229	299	0.23	4.3	30411
	B008IFXQFU	TP-Link USB WiFi Adapter for PC(TL-WN725N), ...	Computers&Accessories NetworkingDevices Ne...	499	999	0.5	4.2	179691
	B082LZGK39	Ambrane Unbreakable 60W / 3A Fast Charging ...	Computers&Accessories Accessories&Peripheral...	199	299	0.33	4	43994
	B08CF3D7QR	Portronics Konnect L POR-1081 Fast Charging 3...	Computers&Accessories Accessories&Peripheral...	154	339	0.55	4.3	13391
	B0789LZTCJ	boAt Rugged v3 Extra Tough Unbreakable Braid...	Computers&Accessories Accessories&Peripheral...	299	799	0.63	4.2	94363

When conducting an Amazon sales analysis, focusing on products with ratings greater than 4 is crucial because these high ratings indicate strong customer satisfaction and can significantly impact sales performance

```
Select product_id, product_name, category From amazonWhere
category like "%Computers&Accessories%";
```

	product_id	product_name	category
▶	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	Computers&Accessories
	B098NS6PVG	Ambrane Unbreakable 60W / 3A Fast Charging ...	Computers&Accessories
	B096MSW6CT	Sounce Fast Phone Charging Cable & Data Sync...	Computers&Accessories
	B08HDJ86NZ	boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	Computers&Accessories
	B08CF3B7N1	Portronics Konnect L 1.2M Fast Charging 3A 8 P...	Computers&Accessories
	B08Y1TFSP6	pTron Solero TB301 3A Type-C Data and Fast C...	Computers&Accessories
	B08WRWPM22	boAt Micro USB 55 Tangle-free, Sturdy Micro US...	Computers&Accessories
	B08DDRGWTJ	MI Usb Type-C Cable Smartphone (Black)	Computers&Accessories
	B008IFXQFU	TP-Link USB WiFi Adapter for PC(TL-WN725N), ...	Computers&Accessories
	B082LZGK39	Ambrane Unbreakable 60W / 3A Fast Charging ...	Computers&Accessories
	B08CF3D7QR	Portronics Konnect L POR-1081 Fast Charging 3...	Computers&Accessories

products that are in the Computers & Accessories category

```
Select product_id, product_name From amazonWhere  
about_product like "%durable%";
```

	product_id	product_name
▶	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...
	B098NS6PVG	Ambrane Unbreakable 60W / 3A Fast Charging ...
	B096MSW6CT	Sounce Fast Phone Charging Cable & Data Sync...
	B08CF3B7N1	Portronics Konnect L 1.2M Fast Charging 3A 8 P...
	B08WRWPM22	boAt Micro USB 55 Tangle-free, Sturdy Micro US...
	B08DDRGWTJ	MI Usb Type-C Cable Smartphone (Black)
	B082LZGK39	Ambrane Unbreakable 60W / 3A Fast Charging ...
	B08CF3D7QR	Portronics Konnect L POR-1081 Fast Charging 3...

All products where the about product
column contains the word durable

Analyzing product durability is critical in various industries to ensure customer satisfaction, brand reputation, and cost-efficiency. Here's an overview of key aspects involved in the analysis of product durability


```
Select Count(distinct product_id) As No_of_products From Amazon;
```

	No_of_products
▶	1351

The a query to count the total number of products in the dataset.

When presenting data about the number of products available on Amazon, it's important to highlight the vast diversity and scale of the platform

```
Select Avg(rating) as Avg_rating From Amazon;
```

	Avg_rating
▶	4.091999995090343

Find the average rating of all products.

The average rating of products on Amazon is a crucial metric for both consumers and sellers, influencing purchasing decisions, sales performance, and overall customer satisfaction.

The top 5 highest-rated products based the rating, sorted in descending order..

Select product_id, product_name, RatingFrom AmazonOrder By Rating Desc Limit 5;

	product_id	product_name	Rating
▶	B0BP7XLX48	Syncwire LTG to USB Cable for Fast Charging C...	5
	B09ZHCJDP1	Amazon Basics Wireless Mouse 2.4 GHz Conne...	5
	B0BQRJ3C47	REDTECH USB-C to Lightning Cable 3.3FT, [App...	5
	B0BR4F878Q	Swiffer Instant Electric Water Heater Faucet Ta...	4.8
	B0BQ3K23Y1	Oratech Coffee Frother electric, milk frother ele...	4.8

Highlighting the importance of the top 5 products on Amazon involves understanding how these bestsellers impact various stakeholders, including consumers, sellers, and the platform itself.

It all products along with the number of reviews they have Include columns for uct id, product name, and review count

```
Select product_id, product_name, Count(review_id) as  
review_countFrom AmazonGroup By product_id, product_name;
```

	product_id	product_name	review_count
►	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	1
	B098NS6PVG	Ambrane Unbreakable 60W / 3A Fast Charging ...	1
	B096MSW6CT	Source Fast Phone Charging Cable & Data Sync...	1
	B08HDJ86NZ	boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	1
	B08CF3B7N1	Portronics Konnect L 1.2M Fast Charging 3A 8 P...	1
	B08Y1TFSP6	pTron Solero TB301 3A Type-C Data and Fast C...	1
	B08WRWPM22	boAt Micro USB 55 Tangle-free, Sturdy Micro US...	1
	B08DDRGWTJ	MI Usb Type-C Cable Smartphone (Black)	1

Understanding the number of reviews a product has on Amazon is crucial for various stakeholders, including consumers, sellers, and the platform itself. Here's an in-depth look at why finding the number of reviews for a product on Amazon is important.

products that have the same rating and belong to the same category.-- Display product id, product name, category, And rating.

```
Select A1.product_id, A1.product_name, A1.category, A1.rating From
Amazon A1join Amazon A2On A1.rating = A2.rating And A1.category
= A2.category;
```

	product_id	product_name	category	rating
▶	B086JTMRYL	ESR USB C to Lightning Cable, 10 ft (3 m), MFi-...	Computers&Accessories Accessories&Peripheral...	4.4
	B084N1BM9L	Belkin Apple Certified Lightning to USB Charge a...	Computers&Accessories Accessories&Peripheral...	4.4
	B08NCKT9FG	Boat A 350 Type C Cable 1.5m(Jet Black)	Computers&Accessories Accessories&Peripheral...	4.4
	B084MZXJN6	Belkin Apple Certified Lightning to USB Charge a...	Computers&Accessories Accessories&Peripheral...	4.4
	B0B8SSC5D9	AmazonBasics USB C to Lightning Aluminum with...	Computers&Accessories Accessories&Peripheral...	4.4
	B0B8SRZ5SV	AmazonBasics USB C to Lightning Aluminum with...	Computers&Accessories Accessories&Peripheral...	4.4
	B084N133Y7	Belkin Apple Certified Lightning To Type C Cable...	Computers&Accessories Accessories&Peripheral...	4.4
	B084MZXJNK	Belkin Apple Certified Lightning To Type C Cable...	Computers&Accessories Accessories&Peripheral...	4.4

Consumers often look for similar products to compare features, prices, and reviews. Finding products within the same category and rating allows for more informed purchasing decisions.

```
Select product_id, product_name, rating,      Case      When rating >
4.5 Then "Excellent"      When rating >= 4.0 Then "Good"      Else
"Average" End as Rating_Category From Amazon;
```

	product_id	product_name	rating	Rating_Category
▶	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	4.4	Good
	B098NS6PVG	Ambrane Unbreakable 60W / 3A Fast Charging ...	4	Good
	B096MSW6CT	Sounce Fast Phone Charging Cable & Data Sync...	3.9	Average
	B08HDJ86NZ	boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	4.2	Good
	B08CF3B7N1	Portronics Konnect L 1.2M Fast Charging 3A 8 P...	4.2	Good
	B08Y1TFSP6	pTron Solero TB301 3A Type-C Data and Fast C...	3.9	Average
	B08WRWPM22	boAt Micro USB 55 Tangle-free, Sturdy Micro US...	4.1	Good
	B08DDRGWTJ	MI Usb Type-C Cable Smartphone (Black)	4.3	Good

Sellers can tailor their marketing strategies based on the product category. For instance, products in the Excellent category can be marketed as premium or top-rated products, while those in the Good category can be promoted as high-value options.

Categorize products into three categories based on their rating: Excellent for rating 4.5 and above, Good for ratings between 4.0 and 4.5, and Average for ratings below 4.0.

```
Select *, (actual_price - discounted_price) as Discount_amount
From Amazon;
```

		review_content	img_link	product_link	Discount_amount
▶	ally fast, Value for mone...	Looks durable Charging is fine tooNo complains,...	https://m.media-amazon.com/images/W/WEBP_...	https://www.amazon.in/Wayona-Braided-WN3L...	700
	or Your Type C Device, G...	I ordered this cable to connect my phone to An...	https://m.media-amazon.com/images/W/WEBP_...	https://www.amazon.in/Ambrane-Unbreakable-...	150
	versions, Good Product, ...	Not quite durable and sturdy, https://m.media-a...	https://m.media-amazon.com/images/W/WEBP_...	https://www.amazon.in/Source-iPhone-Chargin...	1700
	, Nice, Really nice produc...	Good product, long wire, Charges good, Nice, I bo...	https://m.media-amazon.com/images/I/41V5FtE...	https://www.amazon.in/Deuce-300-Resistant-T...	370
	ent, Good one for secon...	Bought this instead of original apple, does the ...	https://m.media-amazon.com/images/W/WEBP_...	https://www.amazon.in/Portronics-Konnect-PO...	245
	e quality, very good and...	It's a good product, Like, Very good item strong ...	https://m.media-amazon.com/images/I/31wOPj...	https://www.amazon.in/Solero-TB301-Charging...	851
	es not charge Lenovo m...	Build quality is good and it is comes with 2 year ...	https://m.media-amazon.com/images/W/WEBP_...	https://www.amazon.in/boAt-Micro-USB-Tangle...	322.3699951171875

New column discount_amount to the cts table that calculates the difference en actual_price and discounted_price

Understanding the discount amount allows consumers to compare prices effectively. By knowing the discounted price, consumers can assess whether the discounted offer is better than the original price or other competing offers

```
With RankedProducts AS (SELECT product_name,  
discount_percentage, ROW_NUMBER() OVER (ORDER BY  
discount_percentage DESC) AS row_num FROM amazon)  
SELECT product_name, discount_percentage FROM  
RankedProducts WHERE row_num = 1;
```

	product_name	discount_percentage
▶	rtss [2 Pack] Mini USB C Type C Adapter Plug, Ty...	0.94

The product with the highest
discount percentage

Consumers often engage in competitive shopping, seeking out the best deals and discounts available. Knowing the highest discount percentage enables consumers to stay competitive in their shopping endeavors, ensuring they don't miss out on significant savings offered by competitors.

Create a view named High Rating Products at includes products with a rating of 4.5 and above.

```
Create view HighRatingProducts as (Select * From Amazon
Where rating >= 4.5);
Select product_id, product_name, rating From HighRatingProducts;
```

	product_id	product_name	rating
▶	B09C6HXFC1	Duracell USB Lightning Apple Certified (Mfi) Brai...	4.5
	B00NH11PEY	AmazonBasics USB 2.0 - A-Male to A-Female Ex...	4.5
	B00NH11KIK	AmazonBasics USB 2.0 Cable - A-Male to B-Male...	4.5
	B0B86CDHL1	oraimo 65W Type C to C Fast Charging Cable U...	4.5
	B0BMXMLSMM	Lapster 65W compatible for OnePlus Dash Warp...	4.5
	B00V4BGDKU	TP-Link UE300 USB 3.0 to RJ45 Gigabit Ethernet...	4.5
	B09TT6BFDX	Cotbolt Silicone Protective Case Cover for LG a...	4.5
	B08TGG316Z	10k 8k 4k HDMI Cable, Certified 48Gbps 1ms Ult...	4.6

Choosing products with ratings exceeding 4.5 reduces the risk of encountering issues such as defects, poor performance, or dissatisfaction. Consumers can feel more confident in their purchases, knowing that they are less likely to experience negative outcomes associated with lower-rated products.

Select product_id, product_name, category, rating, Rank() Over (Partition By Category Order By rating Desc) as RankingFrom Amazon;

	product_id	product_name	category	rating	Ranking
▶	B0912WJ87V	Reffair AX30 [MAX] Portable Air Purifier for Car,...	Car&Motorbike CarAccessories InteriorAccesso...	3.8	1
	B097C564GC	rts [2 Pack] Mini USB C Type C Adapter Plug, Ty...	Computers&Accessories Accessories&Peripheral...	4.3	1
	B094DQWV9B	Kanget [2 Pack] Type C Female to USB A Male C...	Computers&Accessories Accessories&Peripheral...	4	2
	B009LJ2BXA	Hp Wired On Ear Headphones With Mic With 3.5...	Computers&Accessories Accessories&Peripheral...	3.5	1
	B08SCCG9D4	JBL Commercial CSLM20B Auxiliary Omnidirectio...	Computers&Accessories Accessories&Peripheral...	3.9	1
	B08HD7JQHX	HUMBLE Dynamic Lapel Collar Mic Voice Recordi...	Computers&Accessories Accessories&Peripheral...	3.3	2
	B08SBH499M	ZEBRONICS Zeb-Warrior II 10 watts 2.0 Multim...	Computers&Accessories Accessories&Peripheral...	4.1	1
	B08K9PX15C	Zebronics Zeb Wonderbar 10 USB Powered 2.0 ...	Computers&Accessories Accessories&Peripheral...	4	2

Using a window function to Rank products sed on their rating within each category.

If a customer searches for a product within a specific category, products within that category may be given higher priority in the search results. Therefore, it is important for sellers to accurately categorize their products to increase their visibility and improve their chances of being found by potential customers.

Calculate the cumulative count
Of products deed each month
sorted by discounted
price.

Select product_id, product_name, discounted_price,
Count(product_id) Over (Order By discounted_price Rows Between
unbounded preceding and current row) as cumulated_countFrom
Amazon;

	product_id	product_name	discounted_price	cumulated_count
▶	B00MFPCY5C	GIZGA essentials Universal Silicone Keyboard Pr...	39	1
	B08TDJ5BVF	E-COSMOS 5V 1.2W Portable Flexible USB LED L...	39	2
	B00URH5E34	Inventis 5V 1.2W Portable Flexible USB LED Ligh...	39	3
	B07KCMR8D6	Classmate Octane Neon- Blue Gel Pens(Pack of ...	50	4
	B0B3MQXNFB	FLiX (Beetel Flow USB to Micro USB PVC Data Sy...	57.89	5
	B09NHVCHS9	Flix Micro Usb Cable For Smartphone (Black)	59	6
	B09NJJN8L25	FLiX (Beetel USB to Micro USB PVC Data Sync & ...	59	7
	B08TDJNM3G	E-COSMOS 5V 1.2W Portable Flexible USB LED L...	59	8

Cumulative counts allow you to track the growth of product additions over time. By sorting them by discounted price, you can identify trends related to pricing strategies.

```
DELIMITER $
Create Procedure Update_rating(IN productId Varchar(200), IN
new_rating decimal(10,1))
Begin
    Update Amazon Set rating = New_rating Where
product_id = productId;
End $
DELIMITER ;
Call Update_rating("B07JW9H4J1", 4.4);
```

order procedure to update the
rating of a duct given its product id
and new rating

	product_id	rating
▶	B07JW9H4J1	4.4
	B098NS6PVG	4
	B096MSW6CT	3.9
	B08HDJ86NZ	4.2
	B08CF3B7N1	4.2
	B08Y1TFSP6	3.9
	B08WRWPM22	4.1
	B08DDRGWTJ	4.3

```
Select Category From ( Select Category, Avg(rating) as Avg_rating  
From Amazon Group By category) cr  
Group By category  
Order By Avg_rating Desc Limit 1;
```

	Category
▶	Computers&Accessories Tablets

Find the category with the highest average for products. Use subqueries and aggregate functions to achieve this.

By examining the competitive landscape within a product category, you can identify your main competitors, understand their product offerings, and assess their strengths and weaknesses

Find pairs of products from the same category where one product has a higher than the other.-- Display columns for oduct_id_1, product_name_1, rating_1, product_id_2, product_name_2, and rating_2.

```
Select A1.product_id as product_id_1, A1.product_name as product_name_1, A1.rating as rating_1, A2.product_id as product_id_2, A2.product_name as product_name_2, A2.rating as rating_2
From Amazon A1, Amazon A2
Where A1.category = A2.category and A1.rating > A2.rating And
A1.product_id <> A2.product_id;
```

	product_id_1	product_name_1	rating_1	product_id_2	product_name_2	rating_2
▶	B0BQRJ3C47	REDTECH USB-C to Lightning Cable 3.3FT, [App...	5	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	4.4
	B084MZYBTv	Belkin USB C to USB-C Fast Charging Type C Ca...	4.5	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	4.4
	B00NH13Q8W	AmazonBasics USB 2.0 Extension Cable for Pers...	4.5	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	4.4
	B0BP7XLX48	Syncwire LTG to USB Cable for Fast Charging C...	5	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	4.4
	B084N18QZY	Belkin USB C to USB-C Fast Charging Type C Ca...	4.5	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	4.4
	B082T6GXS5	AmazonBasics New Release Nylon USB-A to Ligh...	4.5	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	4.4
	B0BMXMLSMM	Lapster 65W compatible for OnePlus Dash Warp...	4.5	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	4.4
	B0B86CDHL1	oraimo 65W Type C to C Fast Charging Cable U...	4.5	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Ch...	4.4

When customers search for products within a specific category, they often compare different options. By identifying pairs of products with varying ratings, you can guide customers toward higher-rated items. This improves their overall shopping experience and satisfaction.



thanks!



For Exploring this presentation on the Amazon Sales Data Analysis. Your interest and engagement are greatly appreciated. Any Questions are also welcome.

By:- Aman Sharma

