



MySQL Presentation



Amazon Data Analysis

Data-Driven Insights for a Better
Shopping Experience.



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Amazon Product Dataset | SQL Analysis

This project analyzes Amazon product data using SQL and MySQL. The dataset includes product names, prices, discounts, ratings, and categories.

The goal is to extract insights that help understand pricing trends, customer preferences, and product performance using structured SQL queries.



Introduction





List all products with a discounted price below ₹500

Syntax

```
SELECT  
    product_name, discounted_price  
FROM  
    mytable  
WHERE  
    discounted_price < 500;
```

Output

	product_name	discounted_price
▶	Wayona Nylon Braided USB to Lightning Fast Ch...	399
	Ambrane Unbreakable 60W / 3A Fast Charging ...	199
	Sounce Fast Phone Charging Cable & Data Sync...	199
	boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	329
	Portronics Konnect L 1.2M Fast Charging 3A 8 P...	154
	pTron Solero TB301 3A Type-C Data and Fast C...	149
	boAt Micro USB 55 Tangle-free, Sturdy Micro US...	176.63
	MI Usb Type-C Cable Smartphone (Black)	229
	TP-Link USB WiFi Adapter for PC(TL-WN725N), ...	499
	TP-Link TL-WN725N 150Mbps Wireless N USB Adapter	100

Insight

This query identifies all products available at a discounted price below ₹500, allowing us to analyze the lower-price segment of the catalog. These items often attract high customer interest due to affordability.

Management can use these insights to:

- Plan targeted promotions and marketing campaigns around popular budget-friendly products.
- Evaluate how discounted items are performing and make informed adjustments to pricing strategies.
- Understand customer preferences for affordable products and ensure sufficient inventory for high-demand, low-cost items.



Find products with a discount percentage of 50% or more.

Syntax

```
SELECT  
    product_name, discount_percentage  
FROM  
    mytable  
WHERE  
    discount_percentage >= 0.50;
```

Output

product_name	discounted_price
Wayona Nylon Braided USB to Lightning Fast Ch...	399
Ambrane Unbreakable 60W / 3A Fast Charging ...	199
Source Fast Phone Charging Cable & Data Sync...	199
boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	329
Portronics Konnect L 1.2M Fast Charging 3A 8 P...	154
pTron Solero TB301 3A Type-C Data and Fast C...	149
boAt Micro USB 55 Tangle-free, Sturdy Micro US...	176.63
MI Usb Type-C Cable Smartphone (Black)	229
TP-Link USB WiFi Adapter for PC(TL-WN725N), ...	499

Insight

This query retrieves all products that offer a discount percentage of 50% or more. Such items represent the highest-discount segment, which is valuable for analyzing consumer attraction, promotional effectiveness, and pricing behavior.

Management can use these insights to:

- Identify products with major price drops, which are likely to attract customers during sales.
- Evaluate which categories frequently feature heavy discounts and plan future promotions accordingly.
- Understand customer response to high-discount items, helping refine discount strategies.
- Optimize inventory for heavily discounted products, ensuring popular deals remain available.



Retrieve all products where the name contains the word "Cable."

Syntax

```
SELECT  
    product_name  
FROM  
    mytable  
WHERE  
    product_name LIKE '%cable%';
```

Output

product_name
Wayona Nylon Braided USB to Lightning Fast Ch...
Ambrane Unbreakable 60W / 3A Fast Charging ...
Source Fast Phone Charging Cable & Data Sync...
boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...
Portronics Konnect L 1.2M Fast Charging 3A 8 P...
pTron Solero TB301 3A Type-C Data and Fast C...
boAt Micro USB 5F Type-C to Micro USB

Insight

This query retrieves all products whose names contain the word “cable”, helping us isolate items related to charging, data transfer, and connectivity accessories. This focused filtering gives valuable information about accessory trends within the catalog.

Management can use these insights to:

- Analyze the variety of cable-related products offered in the marketplace.
- Understand customer demand for essential accessories like USB, Type-C, and Lightning cables.
- Identify popular cable brands or models, supporting category-specific decisions.
- Plan inventory and pricing strategies for fast-selling cable products.



Display the difference between the average of the actual price and the discounted price for each product.

Syntax

```
SELECT  
    product_name, AVG(actual_price - discounted_price)  
FROM  
    mytable  
GROUP BY product_name;
```

Output

product_name	AVG(actual_price - discounted_price)
Wayona Nylon Braided USB to Lightning Fast Ch...	700
Ambrane Unbreakable 60W / 3A Fast Charging ...	150
Source Fast Phone Charging Cable & Data Sync...	1100
boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	370
Portronics Konnect L 1.2M Fast Charging 3A 8 P...	245
pTron Solero TB301 3A Type-C Data and Fast C...	851
boAt Micro USB 55 Tangle-free, Sturdy Micro US...	322.37
MI Usb Type-C Cable Smartphone (Black)	70
TP-Link USB WiFi Adapter for PC(TL-WN725N), ...	500
Ambrane Unbreakable 60W / 3A Fast Charging ...	100

Insight

This query calculates the average discount amount for each product by subtracting the discounted price from the actual price. It helps identify how much discount (in rupees) is typically being offered on each item.

Management can use these insights to:

- Recognize products with high discount amounts, which may drive strong customer interest.
- Evaluate discount strategies to ensure profitable yet attractive pricing.
- Compare discount levels across different products or brands, identifying which offer greater savings.
- Plan targeted deals or festive offers based on products that already show significant markdowns.



Query reviews that mention "fast charging" in their content.

Syntax

```
SELECT  
    product_name, review_content  
FROM  
    mytable  
WHERE  
    review_content LIKE '%fast charging%';
```

Output

	product_name	review_content
▶	Ambrane Unbreakable 60W / 3A Fast Charging ...	I ordered this cable to connect
	boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	Good product, long wire, Char
	Ambrane Unbreakable 60W / 3A Fast Charging ...	I ordered this cable to connect
	Portronics Konnect L POR-1081 Fast Charging 3...	The cable is efficient in fast c
	boAt Rugged v3 Extra Tough Unbreakable Braid...	Good product, long wire, Char
	Portronics Konnect CL 20W POR-1067 Type-C t...	Definitely isn't as good as the
	MI Braided USB Type-C Cable for Charging Ada...	I like it 🌟🌟, Best charging po
	Ambrane Unbreakable 60W / 3A Fast Charging ...	I ordered this cable to connect
	boAt Type C A325 Tangle-free, Sturdy Type C ...	Check for offer before buyin

Insight

This query returns all products whose reviews mention “fast charging”, allowing us to identify items that customers specifically appreciate or evaluate for charging speed.

By analyzing these keyword-based reviews, management can:

- Understand customer expectations related to fast-charging performance.
- Identify products frequently praised for fast charging, which can be highlighted or promoted.
- Spot recurring issues or complaints if fast charging is mentioned negatively.
- Improve product descriptions and marketing, aligning them with the features customers care about most.



Identify products with a discount percentage between 20% and 40%.

Syntax

```
SELECT  
    product_name, discount_percentage  
FROM  
    mytable  
WHERE  
    discount_percentage BETWEEN 0.20 AND 0.40;
```

Output

product_name	discount_percentage
MI Usb Type-C Cable Smartphone (Black)	0.23
Ambrane Unbreakable 60W / 3A Fast Charging ...	0.33
Ambrane Unbreakable 60W / 3A Fast Charging ...	0.38
LG 80 cm (32 inches) HD Ready Smart LED TV 3...	0.39
OnePlus 80 cm (32 inches) Y Series HD Ready L...	0.25
Ambrane Unbreakable 3 in 1 Fast Charging Brai...	0.25
OnePlus 126 cm (50 inches) Y Series 4K Ultra H...	0.28
TP-Link Nano AC600 USB Wi-Fi Adapter(Archer ...	0.38

Insight

This query extracts all products offering a moderate discount, specifically between 20% and 40%.

These mid-range discounts often attract customers who want good value without waiting for major sales.

Management can use these insights to:

- Identify products consistently offered at moderate discounts, showing balanced pricing strategies.
- Understand customer interest in mid-discount items, which often perform well in everyday purchases.
- Compare different product categories to see which ones rely on moderate discounts to drive sales.
- Plan future promotional ranges, ensuring discounts stay competitive while maintaining profitability.



Find products that have an actual price above ₹1,000 and are rated 4 stars or above.

Syntax

```
SELECT  
    product_name, actual_price, rating  
FROM  
    mytable  
WHERE  
    actual_price > 1000 AND rating >= 4;
```

Output

product_name	actual_price	rating
Wayona Nylon Braided USB to Lightning Fast Ch...	1099	4.2
MI 80 cm (32 inches) 5A Series HD Ready Smart...	24999	4.2
LG 80 cm (32 inches) HD Ready Smart LED TV 3...	21990	4.3
Duracell USB Lightning Apple Certified (Mfi) Brai...	1799	4.5
Samsung 80 cm (32 Inches) Wonderertainment Se...	22900	4.3
Acer 80 cm (32 inches) I Series HD Ready Andr...	19990	4.3
OnePlus 80 cm (32 inches) Y Series HD Ready L...	19999	4.2
Duracell USB C To Lightning Apple Certified (Mfi)...	1999	4.4

Insight

This query retrieves all products priced above ₹1000 that also have a rating of 4.0 or higher. It helps identify premium items that deliver strong customer satisfaction.

Management can use these insights to:

- Identify high-value products that customers trust, indicating strong performance in quality and reliability.
- Understand which premium categories are performing well, such as electronics or branded accessories.
- Support pricing strategies by verifying that higher-priced items justify their cost through positive ratings.
- Highlight top-rated premium products during promotions or recommendation sections to increase conversions.



Find products where the discounted price ends with a 9

Syntax

```
SELECT  
    product_name, discounted_price  
FROM  
    mytable  
WHERE  
    discounted_price LIKE '%9';
```

Output

product_name	discounted_price
Wayona Nylon Braided USB to Lightning Fast Ch...	399
Ambrane Unbreakable 60W / 3A Fast Charging ...	199
Sounce Fast Phone Charging Cable & Data Sync...	199
boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	329
pTron Solero TB301 3A Type-C Data and Fast C...	149
MI Usb Type-C Cable Smartphone (Black)	229
TP-Link USB WiFi Adapter for PC(TL-WN725N), ...	499

Insight

This query returns all products whose discounted price ends with the digit '9'. Prices ending in .99 or 9 are a common psychological pricing strategy used to make items appear more affordable.

By filtering these products, management can:

- Identify items that use charm pricing, which often increases customer interest and conversions.
- Analyze how frequently this pricing strategy is applied across different product categories.
- Compare performance of '9-ending' prices with other pricing formats to understand customer behaviour.
- Optimize future pricing strategies by evaluating which products benefit most from this pricing style.



Display review contents that contains words like worst, waste, poor, or not good.

Syntax

```
SELECT
    product_name, review_content
FROM
    mytable
WHERE
    review_content LIKE ('%worst')
        OR review_content LIKE ('%waster%')
        OR review_content LIKE ('%poor%')
        OR review_content LIKE ('%not good%');
```

Output

product_name	review_content
MI Usb Type-C Cable Smartphone (Black)	Worth for money -
LG 80 cm (32 inches) HD Ready Smart LED TV 3...	LG was always Goo
tizum HDMI to VGA Adapter Cable 1080P for Pr...	This connector has
Samsung 80 cm (32 Inches) Wonderertainment Se...	Overall good.,TV pi
OnePlus 80 cm (32 inches) Y Series HD Ready L...	This OnePlus TV is g
Samsung Original Type C to C Cable - 3.28 Feet...	Buy it,Received in g
OnePlus 126 cm (50 inches) Y Series 4K Ultra H...	I am posting this af
Mi 108 cm (43 inches) Full HD Android LED TV 4...	NOTE:@ If you se'

Insight

This query filters reviews that contain negative keywords such as “worst,” “waster,” “poor,” or “not good.” It helps identify products that customers are dissatisfied with and reveals potential quality or performance issues.

Management can use these insights to:

- Detect products receiving consistent negative feedback, signaling the need for quality checks or improvements.
- Understand the main complaints customers have regarding specific items.
- Compare negative reviews across different product categories, identifying problem areas.
- Make better decisions about returns, replacement policies, or discontinuing low-performing items.



List all products where the category includes "Accessories."

Syntax

```
SELECT  
    product_name, category  
FROM  
    mytable  
WHERE  
    category LIKE ('%accessories%')
```

Output

	product_name	category
▶	Wayona Nylon Braided USB to Lightning Fast Ch...	Computers&Acce
	Ambrane Unbreakable 60W / 3A Fast Charging ...	Computers&Acce
	Sounce Fast Phone Charging Cable & Data Sync...	Computers&Acce
	boAt Deuce USB 300 2 in 1 Type-C & Micro USB ...	Computers&Acce
	Portronics Konnect L 1.2M Fast Charging 3A 8 P...	Computers&Acce
	pTron Solero TB301 3A Type-C Data and Fast C...	Computers&Acce
	boAt Micro USB 55 Tangle-free, Sturdy Micro US...	Computers&Acce
	MI Usb Type-C Cable Smartphone (Black)	Computers&Acce

Insight

This query filters all products whose category contains the word “accessories.” It helps identify items that belong to accessory-related segments such as cables, chargers, adapters, and computer/mobile peripherals.

Management can use these insights to:

- Understand the range of accessories offered across the Amazon product catalog.
- Analyze customer interest in essential add-on products like charging cables and adapters.
- Identify which accessory categories are most popular, helping optimize stock and pricing.
- Plan targeted promotions for high-demand accessory items that frequently drive repeat purchases.



Thank You Very Much



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