

# ETL using AWS Glue and Redshift

## Dataset Used : **AMAZON PRODUCT SALES**

### SQL Queries and Analysis

#### 1. Entire Entries

```
select * from spectrum_schema.product_data_final;
```



The screenshot displays a table with 10 columns: title, brand, description, final\_price, currency, availability, reviews\_count, categories, and asin. The table contains 20 rows of product data. The first row is for a Saucony Men's Kinvara 1 shoe, priced at 57.79 USD, with 702 reviews. The last row is for a Braun SES-895 epilator, priced at 94.94 USD, with 1003 reviews. The table is part of a query result interface showing results 1 to 1000.

title	brand	description	final_price	currency	availability	reviews_count	categories	asin
Saucony Men's Kinvara 1...	Saucony	When it comes to lightwei...	57.79	USD	In Stock	702	["Clothing, Shoes & Jewel...	B099C...
Kohigo Premium Black S...	Kohigo	The Kohigo Premium Bla...	28.5	USD	In Stock	916	["Tools & Home Improv...	B0074...
TWINSLUXES Solar Post ...	TWINSLUXES	Solar Post Cap Lights Wa...	33.99	USD	In Stock	3178	["Tools & Home Improv...	B07V5...
Acoutire M5-40218 Digi...	Acoutire	About this item Heavy dut...	18	USD	In Stock	8034	["Automotive", "Tools & E...	B0008...
SAURA LIFE SCIENCE A...	SAURA LIFE SCIENCE	This extraordinary fusion L...	799	INR	In Stock	5	["Beauty", "Hair Care", "Ha...	B0C2Q...
KASOTT Replacement Air ...	KASOTT	About this item   Exclusiv...	17.88	USD	In Stock	67	["Electronics", "Headphon...	B0B6G...
Bio-Oil Skincare Body Oil ...	Bio-Oil	Give your skin a break wh...	24.95	USD	In Stock	6095	["Beauty & Personal Care...	B0883...
crystling 13 Inch Sewing ...	crystling	About this item ★ High Q...	20.99	USD	In Stock	219	["Arts, Crafts & Sewing", "...	B0B8K...
Ridgid 62990 T-201 5' Str...	RIDGID	The product is 62990 AU...	25.38	USD	Limited	28	["Tools & Home Improv...	B001H...
Core 10 Women's All Day ...	Core 10	Empowering women to re...	23.92	USD	Limited	1538	["Clothing, Shoes & Jewel...	B079C...
Barney Butler Bare Smoo...	Barney Butler	NaN	NaN	USD	In Stock	110	["Grocery & Gourmet Foo...	B0956...
Trucker Bluetooth Headse...	EKSA	About this item   Induair...	84.99	USD	In Stock	2232	["Electronics", "Headphon...	B0B8K...
LOOGU Desert Netting S...	LOOGU	LOOGU was founded in 2...	11.19	GBP	In Stock	900	["Women", "Accessories", "...	B00LM...
PULOTE 100PCS Pink Pl...	PULOTE	About this item EXQUISIT...	45	USD	In Stock	466	["Health & Household", "H...	B0C28...
Stahlielle 96410704 Dou...	Stahlielle	Stahlielle 96410704 Dou...	141.1	USD	Limited	23	["Tools & Home Improv...	B001C...
2Packs 18V Battery and ...	Cells102	About this item The Cells...	69.99	USD	In Stock	316	["Tools & Home Improv...	B0883...
General Tools 3-Pack Ref...	General Tools	Ideal for DIYers, homeow...	6.19	USD	In Stock	24	["Tools & Home Improv...	B09YH...
DANIEL SMITH Extra Fine...	DANIEL SMITH	DANIEL SMITH Extra Fine...	13.52	USD	Limited	11	["Arts, Crafts & Sewing", "...	B001H...
NZND Case for A&M Mod...	NZND	NZND Gitter Flowing Liq...	13.98	USD	In Stock	229	["Cell Phones & Accessori...	B09M6...
Braun SES-895 Epilator, ...	Braun	Introducing the beauty se...	94.94	USD	In Stock	1003	["Beauty & Personal Care...	B0799...

#### 2. Count of Products by Availability

```
SELECT availability, COUNT(*) AS product_count
```

```
FROM spectrum_schema.product_data_final
```

```
GROUP BY availability;
```

<input type="checkbox"/>	Result 1 (1000)	<b>Result 2 (3)</b>	Result 3 (10)	Result 4
<input type="checkbox"/>	availability	product_count		
<input type="checkbox"/>	In Stock	623		
<input type="checkbox"/>	Limited	375		
<input type="checkbox"/>	Out of Stock	2		

### 3. Top 10 Most Expensive Products

SELECT title, brand, final\_price

FROM spectrum\_schema.product\_data\_final

WHERE final\_price is not null

ORDER BY final\_price DESC

LIMIT 10;

<input type="checkbox"/>	Result 1 (1000)	Result 2 (3)	<b>Result 3 (10)</b>	Result 4 (884)	Result 5
<input type="checkbox"/>	title	brand	final_price		
<input type="checkbox"/>	GBC Paper Shredder, Co...	GBC	3479		
<input type="checkbox"/>	UnderCover Flex Hard Fo...	UNDERCOVER	969		
<input type="checkbox"/>	L'Oréal Paris Shampoo & ...	L'Oréal Paris	940		
<input type="checkbox"/>	Kingston Brass KVPB303...	Kingston Brass	897.56		
<input type="checkbox"/>	SAURA LIFE SCIENCE A...	SAURA LIFE SCIENCE	799		
<input type="checkbox"/>	Comfort Perfume Deluxe, ...	Comfort	770		
<input type="checkbox"/>	Set Wet Styling Kit- Casu...	Set Wet	629		
<input type="checkbox"/>	Power Stop K5823 Front ...	Power Stop	614.97		
<input type="checkbox"/>	ResinTeak Adirondack Ch...	Resin TEAK	599.99		
<input type="checkbox"/>	D.B.Z. Makeup Pro Hd Pa...	D.B.Z.	599		

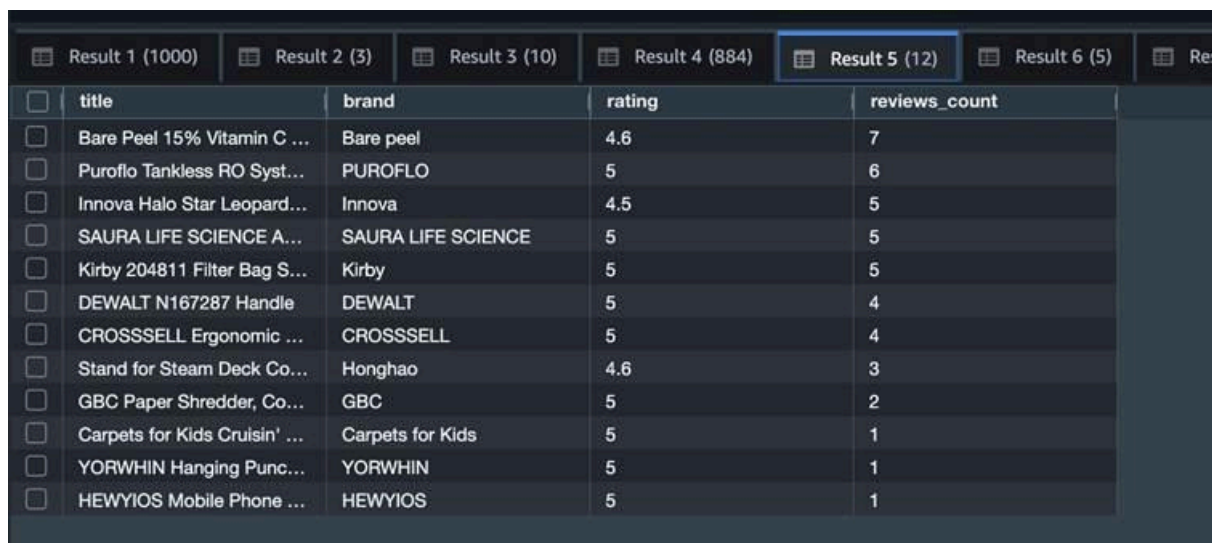
## 4. Average Price by Manufacturer

```
SELECT manufacturer, AVG(final_price) AS avg_price  
FROM spectrum_schema.product_data_final  
WHERE final_price is not null  
GROUP BY manufacturer  
ORDER BY avg_price DESC;
```

Result 1 (1000)	Result 2 (3)	Result 3 (10)	Result 4 (884)
<input type="checkbox"/>	manufacturer	avg_price	
<input type="checkbox"/>	GBC	3479	
<input type="checkbox"/>	Undercover	969	
<input type="checkbox"/>	Loreal Paris Pvt. Ltd.	940	
<input type="checkbox"/>	Kingston Brass	897.56	
<input type="checkbox"/>	SAURA LIFE SCIENCE - I...	799	
<input type="checkbox"/>	Hindustan Unilever Limited	770	
<input type="checkbox"/>	Marico Limited	629	
<input type="checkbox"/>	Power Stop	614.97	
<input type="checkbox"/>	Resin TEAK	599.99	
<input type="checkbox"/>	D.B.Z.	599	
<input type="checkbox"/>	ZAFLY	579.99	
<input type="checkbox"/>	De Ruy Perfumes S.A.	563	
<input type="checkbox"/>	Kodiak Furniture	555.54	
<input type="checkbox"/>	LUXURIATE	545	
<input type="checkbox"/>	Homelegance	502.85	
<input type="checkbox"/>	ISLE Surf and Sup	495	
<input type="checkbox"/>	B R SONS & Jai Shree Ba...	455	
<input type="checkbox"/>	DSI Systems, Inc.	453.99	
<input type="checkbox"/>	Aqua Select	400	
<input type="checkbox"/>	BtrPower	399.99	
K < 1 to 100 of 884 rows > X			

## 5. Hidden Gems: High Rating, Low Reviews

```
SELECT title, brand, rating, reviews_count
FROM spectrum_schema.product_data_final
WHERE rating >= 4.5 AND reviews_count < 8
ORDER BY reviews_count/rating DESC;
```



The screenshot shows a database query result with 12 rows. The columns are title, brand, rating, and reviews\_count. The results are sorted by the ratio of reviews\_count to rating in descending order. The first row has a rating of 4.6 and 7 reviews. The last row has a rating of 5 and 1 review.

	title	brand	rating	reviews_count
<input type="checkbox"/>	Bare Peel 15% Vitamin C ...	Bare peel	4.6	7
<input type="checkbox"/>	Puroflo Tankless RO Syst...	PUROFLO	5	6
<input type="checkbox"/>	Innova Halo Star Leopard...	Innova	4.5	5
<input type="checkbox"/>	SAURA LIFE SCIENCE A...	SAURA LIFE SCIENCE	5	5
<input type="checkbox"/>	Kirby 204811 Filter Bag S...	Kirby	5	5
<input type="checkbox"/>	DEWALT N167287 Handle	DEWALT	5	4
<input type="checkbox"/>	CROSSSELL Ergonomic ...	CROSSSELL	5	4
<input type="checkbox"/>	Stand for Steam Deck Co...	Honghao	4.6	3
<input type="checkbox"/>	GBC Paper Shredder, Co...	GBC	5	2
<input type="checkbox"/>	Carpets for Kids Cruisin' ...	Carpets for Kids	5	1
<input type="checkbox"/>	YORWHIN Hanging Punc...	YORWHIN	5	1
<input type="checkbox"/>	HEWYIOS Mobile Phone ...	HEWYIOS	5	1

## 6. Top 5 Most Frequent Brands

```
SELECT brand, COUNT(*) AS product_count
FROM spectrum_schema.product_data_final
GROUP BY brand
ORDER BY product_count DESC
LIMIT 5;
```

	Result 1 (1000)	Result 2 (3)	Result 3 (10)	Result 4 (884)	Result 5 (12)	Result 6 (5)	
<input type="checkbox"/>	brand	product_count					
<input type="checkbox"/>	Skechers	11					
<input type="checkbox"/>	AVERY	7					
<input type="checkbox"/>	Amazon Essentials	7					
<input type="checkbox"/>	New Balance	6					
<input type="checkbox"/>	adidas	5					

## 7. Top Rated Product per Brand

```

SELECT p1.brand, p1.rating, p1.title, p1.final_price
FROM spectrum_schema.product_data_final p1
JOIN (
    SELECT brand, MAX(rating) AS max_rating
    FROM spectrum_schema.product_data_final
    GROUP BY brand
) p2 ON p1.brand = p2.brand AND p1.rating = p2.max_rating;

```

Result 1 (1000)					
Result 2 (3)					
Result 3 (10)					
Result 4 (884)					
Result 5 (12)					
Result 6 (5)					
Result 7 (912)					
<input type="checkbox"/>	brand	rating	title	final_price	
<input type="checkbox"/>	Saucony	4.6	Saucony Men's Kinvara 1...	57.79	
<input type="checkbox"/>	Kishigo	4.6	Kishigo Premium Black S...	28.5	
<input type="checkbox"/>	TWINSLUXES	4.2	TWINSLUXES Solar Post ...	33.99	
<input type="checkbox"/>	Accutire	4.4	Accutire MS-4021B Digita...	18	
<input type="checkbox"/>	SAURA LIFE SCIENCE	5	SAURA LIFE SCIENCE A...	799	
<input type="checkbox"/>	KASOTT	4.3	KASOTT Replacement Air...	17.88	
<input type="checkbox"/>	Bio-Oil	4.6	Bio-Oil Skincare Body Oil ...	24.95	
<input type="checkbox"/>	crystling	4.6	crystling 13 Inch Sewing ...	20.99	
<input type="checkbox"/>	RIDGID	4.4	Ridgid 62990 T-201 5" Str...	25.38	
<input type="checkbox"/>	Core 10	4.4	Core 10 Women's All Day...	23.92	
<input type="checkbox"/>	Barney Butter	4.5	Barney Butter Bare Smoo...	NaN	
<input type="checkbox"/>	EKSA	4.1	Trucker Bluetooth Headse...	84.99	
<input type="checkbox"/>	LOOGU	4.6	LOOGU Desert Netting S...	11.19	
<input type="checkbox"/>	PULOTE	4.7	PULOTE 100PCS Pink PL...	45	
<input type="checkbox"/>	Stahlwille	4.4	Stahlwille 96410704 Dou...	141.1	
<input type="checkbox"/>	Cell9102	4	2Packs 18V Battery and ...	69.99	
<input type="checkbox"/>	General Tools	4.1	General Tools 3-Pack Ret...	6.19	
<input type="checkbox"/>	DANIEL SMITH	4.8	DANIEL SMITH Extra Fine...	13.52	
<input type="checkbox"/>	NZND	4.5	NZND Case for At&t Moti...	13.98	
<input type="checkbox"/>	Braun	4.3	Braun SE5-895 Epilator, ...	94.94	