**Electronic Retail Sales Analysis - SQL Queries and Insights**

**1. Best Month for Sales**

**SQL Query:**

select

month(orderdate) as month,

sum(quantityordered \* priceeach) as totalsales

from SALES\_DATA\_13022025

group by month

order by totalsales desc;

**Output:**

| **month** | **totalsales** |
| --- | --- |
| 12 | 4608220.13 |
| 10 | 3734714.66 |
| 4 | 3389203.47 |

**Insights:**

* The highest sales occur in **December**, likely due to holiday shopping.
* More discounts and marketing campaigns should be **focused on the top sales months**.

**2 . Best City for Sales**

**SQL Query:**

select city,

sum(quantityordered \* priceeach) as totalsales

from SALES\_DATA\_13022025

group by city

order by totalsales desc

limit 1;

**Expected Output:**

| city | totalsales |
| --- | --- |
| San Francisco | 8254633 |

**Insights:**

* **San Francisco** is the top-performing city.
* More inventory should be stocked in San Francisco to meet demand.
* Focused **regional ads** should be placed for San Francisco customers.

**3. Best Time for Advertisements**

**SQL Query:**

select

hour(orderdate) as hourvalue,

count(distinct orderid) as uniqueordercount

from sales\_data\_13022025

where orderdate is not null

group by hour(orderdate)

order by uniqueordercount desc;

**Expected Output:**

| hourvalue | uniqueordercount |
| --- | --- |
| 19 | 12377 |
| 12 | 12082 |
| 11 | 11882 |

**Insights:**

* **Peak order hours** are **18.00- 19.00hrs**, meaning advertisements should be scheduled during this time.
* Midday sales spike at **11.00 – 12.00hrs**, making it another good time for promotions.

**4. Products Frequently Bought Together**

**SQL Query:**

select product,

count(distinct orderid) as orders

from sales\_data\_13022025

group by product

order by orders desc

limit 5;

**Expected Output:**

| **product** | **orders** |
| --- | --- |
| USB-C Charging Cable | 21855 |
| Lightning Charging Cable | 21604 |
| AAA Batteries (4-pack) | 20593 |
| AA Batteries (4-pack) | 20542 |
| Wired Headphones | 18847 |

**Insights:**

* **USB-C Charging cables** are frequently bought.
* Bundle deals for these products can **increase sales revenue**.

**5. Best-Selling Product**

**SQL Query:**

select product,

sum(quantityordered) as totalquantity

from sales\_data\_13022025

group by product

order by totalquantity desc

limit 1;

**Expected Output:**

| **product** | **totalquantity** |
| --- | --- |
| AAA Batteries (4-pack) | 30949 |

**Insights:**

* **AAA Batteries (4-pack)** is the best-selling product.
* More stock should be kept to **avoid shortages**.
* Discounts and promotions on **best-sellers** can increase customer loyalty.

**Final Business Strategy Recommendations**

| **Observation** | **Recommendation** |
| --- | --- |
| **December has the highest sales** | Run promotions and ads aggressively during this period. |
| **San Francisco has the highest sales** | Allocate more stock and focus marketing campaigns in Sanfrancisco. |
| **18.00 – 19.00hrs is the busiest time** | Schedule ads and email campaigns at this time. |
| **USB Charging Cable is frequently bought** | Offer bundle deals to maximize revenue. |
| **AAA Batteries (4-pack)** **is the best-selling product** | Keep high stock availability and promote it further. |

**Next Steps**

1. Real-time dashboards need to Be implemented to track **sales trends dynamically**.

2. Optimize **advertising budget** based on peak shopping times.