

## SQL TASK

I Have a dataset in which two csv files are preset

1)details csv

2)orders csv

### 1. Total Sales and Profit by Category

```
SELECT  
  
Category,  
  
SUM(Amount) AS TotalSales,  
  
SUM(Profit) AS TotalProfit  
  
FROM  
  
details  
  
GROUP BY  
  
Category  
  
ORDER BY  
  
TotalSales DESC;
```

	Category	TotalSales	TotalProfit
►	Electronics	166267	13162
	Clothing	144323	13325
	Furniture	127181	10476

### 2) Orders with High Quantity (more than 5 items)

```
SELECT `Order ID`, Quantity, Amount, Category, `Sub-Category`  
  
FROM details  
  
WHERE Quantity > 5;
```

	Order ID	Quantity	Amount	Category	Sub-Category
▶	B-25681	7	1096	Electronics	Electronic Games
	B-26055	14	5729	Furniture	Chairs
	B-25955	8	2927	Furniture	Bookcases
	B-26093	8	2847	Electronics	Printers
	B-25703	9	231	Clothing	Hankerchief
	B-25997	6	3125	Electronics	Printers

### 3) Total Sales and Profit by Category (filtered by Quantity > 2)

```

SELECT
    Category,
    SUM(Amount) AS TotalSales,
    SUM(Profit) AS TotalProfit
FROM
    details
WHERE
    Quantity > 2
GROUP BY
    Category
ORDER BY
    TotalSales DESC;

```

	Category	TotalSales	TotalProfit
▶	Electronics	135175	9971
	Clothing	119455	11077
	Furniture	103643	8057

### 4) \*Combine orders and details for full order info

```

SELECT
    o.`Order ID`,
    o.CustomerName,

```

o.City,  
d.Amount,  
d.Profit,  
d.Category

FROM

orders o

INNER JOIN

details d ON o.`Order ID` = d.`Order ID`;

	Order ID	CustomerName	City	Amount	Profit	Category
▶	B-25681	Bhawna	Indore	1096	658	Electronics
	B-26055	Harivansh	Mathura	5729	64	Furniture
	B-25955	Shiva	Pune	2927	146	Furniture
	B-26093	Sarita	Pune	2847	712	Electronics
	B-25602	Vrinda	Pune	2617	1151	Electronics
	B-25881	Lalita	Mathura	2244	247	Clothing

5) Show all orders, even if they don't have matching details

SELECT

o.`Order ID`,  
o.CustomerName,  
d.Amount

FROM

orders o

LEFT JOIN

details d ON o.`Order ID` = d.`Order ID`;

	Order ID	CustomerName	Amount
▶	B-26055	Harivansh	1218
	B-26055	Harivansh	1250
	B-26055	Harivansh	94
	B-26055	Harivansh	213
	B-26055	Harivansh	227
	B-26055	Harivansh	57

6) Show all details, even if orders are missing

SELECT

d.`Order ID`,

d.Category,

o.City

FROM

details d

RIGHT JOIN

orders o ON d.`Order ID` = o.`Order ID`;

	Order ID	Category	City
►	B-26055	Furniture	Mathura
	B-26055	Electronics	Mathura
	B-26055	Clothing	Mathura
	B-26055	Clothing	Mathura
	B-26055	Clothing	Mathura
	B-26055	Clothing	Mathura

7) Cities with above-average total sales

SELECT

City,

SUM(Amount) AS TotalSales

FROM

orders o

JOIN

details d ON o.`Order ID` = d.`Order ID`

GROUP BY

City

HAVING

```

TotalSales > (
    SELECT AVG(city_sales)
    FROM (
        SELECT SUM(Amount) AS city_sales
        FROM orders o
        JOIN details d ON o.`Order ID` = d.`Order ID`
        GROUP BY City
    ) AS avg_table
);

```

	City	TotalSales
►	Indore	63680
	Mathura	28747
	Pune	43612
	Mumbai	58886
	Delhi	22957
	Chandigarh	21142

#### 8) Average profit and total quantity per payment mode

```

SELECT
    PaymentMode,
    AVG(Profit) AS AvgProfit,
    SUM(Quantity) AS TotalQuantity
FROM
    details
GROUP BY
    PaymentMode;

```

	PaymentMode	AvgProfit	TotalQuantity
►	COD	18.3436	2456
	EMI	40.2000	589
	Credit Card	77.3742	672
	UPI	9.9275	1157
	Debit Card	18.2871	741

## 9) Sales Analysis by Category and Sub-Category

**SELECT**

**Category,**

**`Sub-Category`,**

**SUM(Amount) AS TotalSales,**

**SUM(Profit) AS TotalProfit**

**FROM**

**details**

**WHERE**

**Quantity > 2**

**GROUP BY**

**Category, `Sub-Category`**

**ORDER BY**

**TotalSales DESC;**

	Category	Sub-Category	TotalSales	TotalProfit
►	Electronics	Printers	47924	6276
	Clothing	Saree	47254	3574
	Furniture	Bookcases	44934	4238
	Electronics	Phones	37182	1680
	Electronics	Electronic Games	32441	-309
	Furniture	Chairs	29478	1439

## 10) Aggregate Sales by Payment Mode

**SELECT**

**PaymentMode,**

**SUM(Amount) AS TotalSales,**

**SUM(Profit) AS TotalProfit**

**FROM**

**details**

**WHERE**

**Quantity > 2**

**GROUP BY**

**PaymentMode**

**ORDER BY**

**TotalSales DESC;**

	PaymentMode	TotalSales	TotalProfit
▶	COD	121516	8945
	Credit Card	74293	11127
	EMI	72684	4429
	UPI	53689	1508
	Debit Card	36091	3096

### 11) Top Customers by Sales

**SELECT**

**o.CustomerName,**

**SUM(d.Amount) AS TotalSales**

**FROM**

**orders o**

**JOIN**

**details d ON o.`Order ID` = d.`Order ID`**

**WHERE**

**d.Quantity > 2**

**GROUP BY**

**o.CustomerName**

**ORDER BY**

**TotalSales DESC**

**LIMIT 10;**

	CustomerName	TotalSales
▶	Madhav	9046
	Harivansh	8058
	Madan Mohan	7687
	Shiva	6300
	Vishakha	5955
	Lalita	5783

**12) compare sales and profit across different states**

**SELECT**

**o.State,**

**SUM(d.Amount) AS TotalSales,**

**SUM(d.Profit) AS TotalProfit**

**FROM**

**orders o**

**JOIN**

**details d ON o.`Order ID` = d.`Order ID`**

**WHERE**

**d.Quantity > 2**

**GROUP BY**

**o.State**

**ORDER BY**

**TotalSales DESC;**



	State	TotalSales	TotalProfit
▶	Maharashtra	85198	6248
	Madhya Pradesh	69899	4167
	Uttar Pradesh	34309	3274
	Delhi	19308	1410
	Rajasthan	17653	-143
	Gujarat	16999	2095

### 13) Compare Total Sales for Each Category

**SELECT**

**Category,**

**SUM(Amount) AS TotalSales**

**FROM**

**details**

**GROUP BY**

**Category**

**HAVING**

**TotalSales > (**

**SELECT AVG(TotalSales)**

**FROM (**

**SELECT SUM(Amount) AS TotalSales**

**FROM details**

**GROUP BY Category**

**) AS AvgSales**

**)**

**ORDER BY**

**TotalSales DESC;**

	Category	TotalSales
▶	Electronics	166267

#### 14) Sales by City and Sub-Category

SELECT

o.City,

d.`Sub-Category`,

SUM(d.Amount) AS TotalSales

FROM

orders o

JOIN

details d ON o.`Order ID` = d.`Order ID`

WHERE

d.Quantity > 2

GROUP BY

o.City, d.`Sub-Category`

ORDER BY

TotalSales DESC;

	City	Sub-Category	TotalSales
►	Pune	Printers	9164
	Mumbai	Electronic Games	8444
	Mathura	Chairs	7844
	Indore	Printers	6867
	Pune	Bookcases	6797
	Indore	Electronic Games	6564
	...	...	...