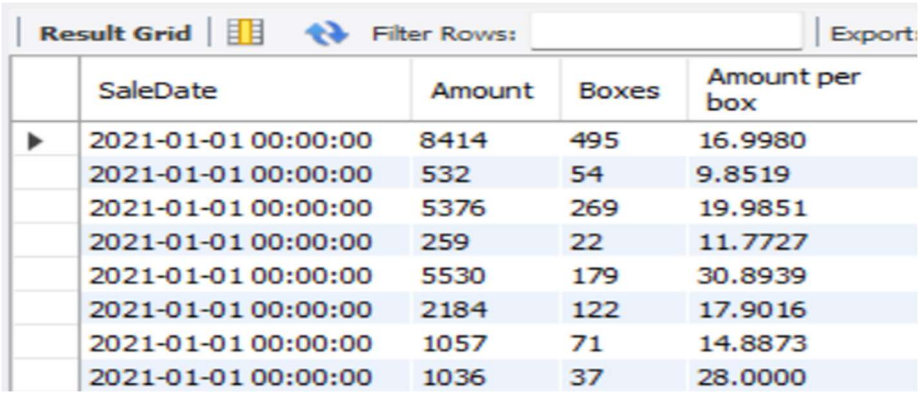
CHOCOLATE STORE DATA ANALYSIS

EASY PROBLEMS:

Q1. Print details of shipment(sales) like saledate, amount, boxes, amount per boxes.

```
SELECT SaleDate, Amount, Boxes, Amount / Boxes AS "Amount per box"

FROM sales;
```

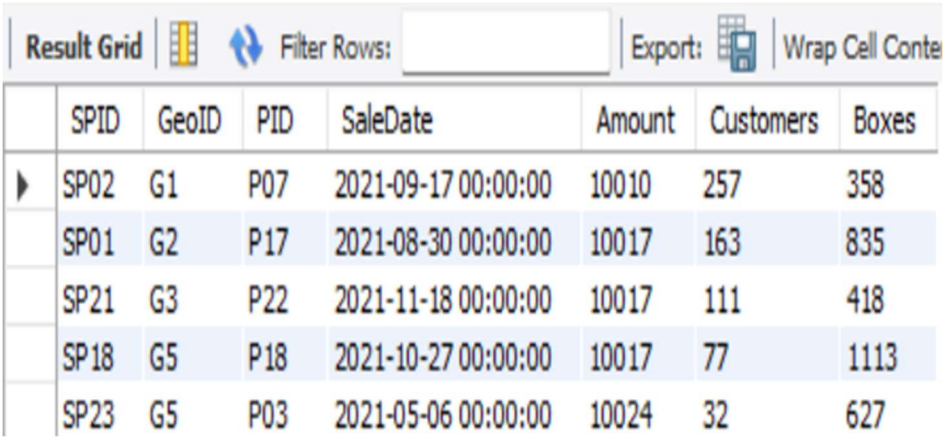


Result Grid | Filter Rows: | Export:

SaleDate	Amount	Boxes	Amount per box
2021-01-01 00:00:00	8414	495	16.9980
2021-01-01 00:00:00	532	54	9.8519
2021-01-01 00:00:00	5376	269	19.9851
2021-01-01 00:00:00	259	22	11.7727
2021-01-01 00:00:00	5530	179	30.8939
2021-01-01 00:00:00	2184	122	17.9016
2021-01-01 00:00:00	1057	71	14.8873
2021-01-01 00:00:00	1036	37	28.0000

Q2. Show the shipment(sales) data where the amount is greater than 10,000.

```
SELECT *

FROM sales

WHERE Amount > 10000

ORDER BY Amount;
```

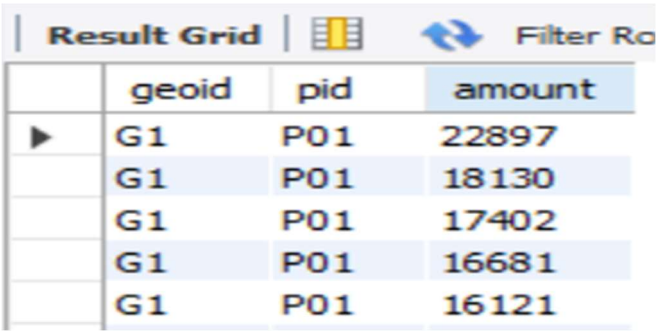


Result Grid | Filter Rows: | Export: | Wrap Cell Conte

SPID	GeoID	PID	SaleDate	Amount	Customers	Boxes
SP02	G1	P07	2021-09-17 00:00:00	10010	257	358
SP01	G2	P17	2021-08-30 00:00:00	10017	163	835
SP21	G3	P22	2021-11-18 00:00:00	10017	111	418
SP18	G5	P18	2021-10-27 00:00:00	10017	77	1113
SP23	G5	P03	2021-05-06 00:00:00	10024	32	627

Q3. Print details of sales where geography is g1 by product id and descending order of amounts.

```
SELECT geoid, pid, amount

FROM sales

WHERE geoid = 'g1'

ORDER BY pid, amount DESC;
```

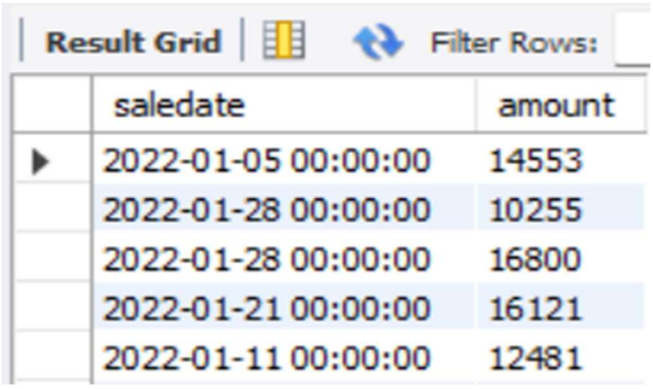


Result Grid | Filter Ro

geoid	pid	amount
G1	P01	22897
G1	P01	18130
G1	P01	17402
G1	P01	16681
G1	P01	16121

Q4. Print details of sales where amount is greater than 10000 and shipped after 2021.

```
SELECT saledate, amount

FROM sales

WHERE amount > 10000 AND SaleDate >= '2022-01-01';
```



Result Grid | Filter Rows:

saledate	amount
2022-01-05 00:00:00	14553
2022-01-28 00:00:00	10255
2022-01-28 00:00:00	16800
2022-01-21 00:00:00	16121
2022-01-11 00:00:00	12481

Q5. Create a branching logic in amount column where if the amount is less than 1000 it will print 'under 1k', less than 5000 'under 5k', less than 10000 'under 10k'.

```
SELECT SaleDate, Amount,
        CASE
                WHEN amount < 1000 THEN 'Under 1k'
                WHEN amount < 5000 THEN 'Under 5k'
                WHEN amount < 10000 THEN 'Under 10k'
        ELSE '10k or more'
        END AS 'Amount Category'
FROM sales;
```

Result Grid | Filter Rows:

SaleDate	Amount	Amount Category
2021-01-01 00:00:00	8414	Under 10k
2021-01-01 00:00:00	532	Under 1k
2021-01-01 00:00:00	5376	Under 10k
2021-01-01 00:00:00	259	Under 1k
2021-01-01 00:00:00	5530	Under 10k

INTERMEDIATE PROBLEMS:

Q1. Print details of shipments (sales) where amounts are greater than 2,000 and boxes are less than 100?

```
SELECT *

FROM sales

WHERE amount > 2000 AND boxes < 100;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Co

SPID	GeoID	PID	SaleDate	Amount	Customers	Boxes
SP19	G3	P10	2021-01-01 00:00:00	2387	134	89
SP11	G2	P17	2021-01-04 00:00:00	2814	296	94
SP07	G4	P13	2021-01-13 00:00:00	2121	130	89
SP25	G2	P08	2021-01-14 00:00:00	2135	183	98
SP17	G5	P01	2021-01-21 00:00:00	2408	106	90

Q2. How many shipments (sales) each of the sales persons had in the month of January 2022?

```
SELECT p.Salesperson, SUM(s.amount) AS 'Total Amount', COUNT(s.saledate) AS 'Shipment Count'

FROM sales s

LEFT JOIN people p ON s.spid = p.spid

WHERE s.saledate BETWEEN '2022-01-01' AND '2022-01-31'

GROUP BY p.Salesperson

ORDER BY COUNT(s.saledate) DESC;
```

Result Grid | Filter Rows: | Export:

Salesperson	Total Amount	Shipment Count
Roddy Speechley	320824	47
Kelci Walkden	255556	44
Gunar Cockshoot	298193	44
Karlen McCaffrey	249662	44
Van Tuxwell	240751	43

Q3. Which product sells more boxes? Milk Bars or Eclairs?

```
SELECT pr.product, SUM(s.boxes) AS 'Total Boxes Sold'
FROM sales s
LEFT JOIN products pr ON pr.pid = s.pid
WHERE pr.product IN ('Milk Bars', 'Eclairs')
GROUP BY pr.product;
```

Result Grid | Filter Rows:

product	Total Boxes Sold
Milk Bars	130995
Eclairs	144651

Q4. Which product sold more boxes in the first 7 days of February 2022? Milk Bars or Eclairs?

```
SELECT pr.product, SUM(s.boxes) AS 'Total boxes sold'
FROM sales s
LEFT JOIN products pr ON pr.pid = s.pid
WHERE pr.product IN ('Milk Bars', 'Eclairs') AND s.saledate BETWEEN '2022-02-01' AND '2022-02-07'
GROUP BY pr.product
ORDER BY SUM(s.boxes) DESC;
```

Result Grid | Filter Rows:

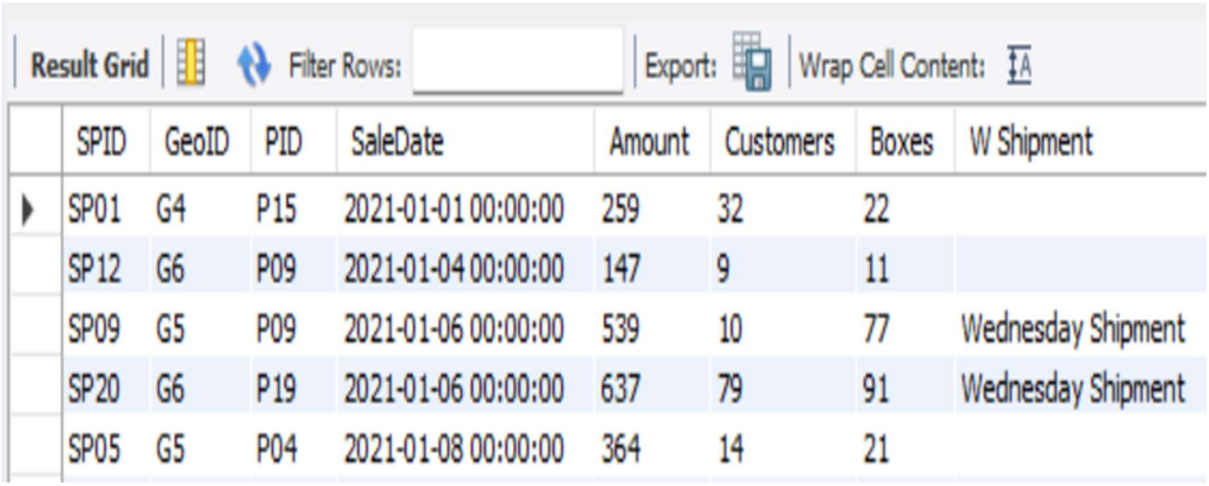
product	Total boxes sold
Eclairs	1019
Milk Bars	818

Q5. Which shipments had under 100 customers & under 100 boxes? Did any of them occur on Wednesday?

```
SELECT *

FROM sales

WHERE customers <100 AND boxes <100 AND dayname(saledate) =
'Wednesday';
```

----------OR----------

```
SELECT *,

CASE

WHEN weekday(saledate) = 2 THEN 'Wednesday Shipment'

ELSE ''

END AS 'W Shipment'

FROM sales

WHERE customers <100 AND boxes <100;
```



SPID	GeoID	PID	SaleDate	Amount	Customers	Boxes	W Shipment
SP01	G4	P15	2021-01-01 00:00:00	259	32	22	
SP12	G6	P09	2021-01-04 00:00:00	147	9	11	
SP09	G5	P09	2021-01-06 00:00:00	539	10	77	Wednesday Shipment
SP20	G6	P19	2021-01-06 00:00:00	637	79	91	Wednesday Shipment
SP05	G5	P04	2021-01-08 00:00:00	364	14	21	

HARD PROBLEMS:

Q1. What are the names of salespersons who had at least one shipment (sale) in the first 7 days of January 2022?

```
SELECT p.Salesperson, COUNT(*) AS 'Shipment Count'

FROM sales s

LEFT JOIN people p ON p.spid = s.spid

WHERE 'Shipment Count' >= 0 AND s.saledate BETWEEN '2022-01-01' AND
'2022-01-07'

GROUP BY p.Salesperson;
```

----------OR----------

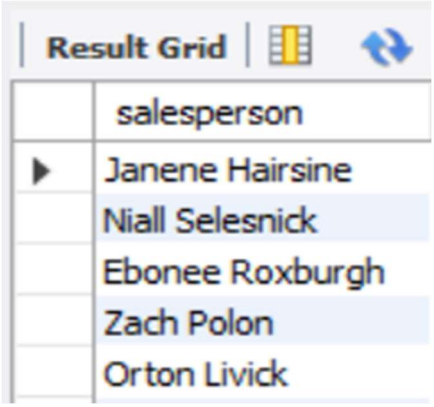
```
SELECT DISTINCT p.Salesperson

FROM sales s

JOIN people p on p.spid = s.SPID

WHERE s.SaleDate between '2022-01-01' and '2022-01-07';
```

Result Grid | Filter Rows:

Salesperson	Shipment Count
Kelci Walkden	11
Van Tuxwell	14
Beverie Moffet	7
Dotty Strutley	9
Gigi Bohling	5

Q2. Which salespersons did not make any shipments in the first 7 days of January 2022?

```
SELECT p.salesperson
FROM people p
WHERE p.spid not in
(SELECT distinct s.spid
 FROM sales s
 WHERE s.SaleDate between '2022-01-01' and '2022-01-07');
```



Q3. How many times we shipped more than 1,000 boxes in each month?

```
SELECT YEAR(saledate) 'Year', MONTH(saledate) 'Month', COUNT(*) 'Times we shipped 1k boxes'
FROM sales
WHERE boxes > 1000
GROUP BY YEAR(saledate), MONTH(saledate)
ORDER BY YEAR(saledate), MONTH(saledate);
```

Result Grid | Filter Rows:

Year	Month	Times we shipped 1k boxes
2021	1	18
2021	2	23
2021	3	32
2021	4	27
2021	5	15

Q4. India or Australia? Who buys more chocolate boxes on a monthly basis?

```
SELECT YEAR(saledate) as Year, MONTH(saledate) 'Month',
SUM(CASE WHEN g.geo = 'India' = 1 THEN boxes ELSE 0 END ) 'India Boxes',
SUM(CASE WHEN g.geo = 'Australia' = 1 THEN boxes ELSE 0 END ) 'Australia Boxes'
FROM sales s
LEFT JOIN geo g ON g.geoid = s.geoid
GROUP BY YEAR(saledate), MONTH(saledate)
ORDER BY YEAR(saledate), MONTH(saledate);
```

Result Grid | Filter Rows:

Year	Month	India Boxes	Australia Boxes
2021	1	23937	25210
2021	2	39717	27961
2021	3	39787	28123
2021	4	22514	35261
2021	5	27531	32213