



# Awesome chocolate

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## INTERMEDIATE PROBLEMS :

1. Print details of Shipments (Sales) where amount are  $> 2,000$  and Boxed are  $< 100$  ?

```
select * from sales
where Amount > 2000 and Boxes < 100
```

	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
	SP10	G3	P17	2021-01-22 00:00:00	2366	470	79
	SP13	G3	P16	2021-01-26 00:00:00	2296	113	96
	SP07	G2	P07	2021-01-29 00:00:00	2394	323	93
	SP01	G1	P22	2021-02-02 00:00:00	2436	203	94
	SP22	G2	P17	2021-02-08 00:00:00	2660	113	89
	SP02	G4	P10	2021-02-19 00:00:00	2100	62	81
	SP24	G1	P16	2021-02-22 00:00:00	2443	337	82
	SP23	G6	P01	2021-03-08 00:00:00	2849	128	95
	SP06	G3	P18	2021-03-08 00:00:00	2730	120	95
	SP07	G6	P16	2021-03-12 00:00:00	2275	359	99
	SP11	G1	P10	2021-03-15 00:00:00	2534	119	91
	SP19	G2	P16	2021-03-22 00:00:00	2954	143	96
	SP16	G1	P17	2021-03-24 00:00:00	2590	209	87

2. How many Shipments (Sales) each of the Salespersons had in the month of January 2022 ?

```
select people.Salesperson, count(*) AS shipment_count
from sales
JOIN people ON sales.SPID = people.SPID
WHERE sales.SaleDate between '2022-01-01' AND '2022-01-31'
GROUP BY people.Salesperson;
```

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	Salesperson	shipment_count
▶	Barr Faughny	31
	Kelci Walkden	44
	Rafaelita Blaksland	34
	Jan Morforth	28
	Marney O'Brien	32
	Wilone O'Kelt	38
	Van Tuxwell	43
	Beverie Moffet	36
	Dotty Strutley	35
	Gigi Bohling	36
	Dennison Crossw...	35
	Gunar Cockshoot	44
	Mallorie Waber	35
	Roddy Speechley	47
	Andria Kimpton	40
	Brien Boise	39
	Karlen McCaffrey	44
	Ches Bonnell	38
	Oby Sorrel	27
	Jehu Rudeforth	36
	Madelene Upcott	38
	Husein Augar	23
	Camilla Castle	31

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

```
select products.product ,sum(Boxes) as total_Boxes
from sales
join products on sales.PID = products.PID
where products in ('Milk Bars','Eclairs')
group by products.Product
order by(total_Boxes) desc;
```

	Product	total_Boxes
▶	Eclairs	144651
	Milk Bars	130995

4. Which product sold more Boxes in the First 7 days of February 2022?  
Bars or Eclairs?

```
SELECT products.Product, sum(Boxes) as total_Boxes
from sales
join products on sales.PID = products.PID
WHERE Product in ('Milk Bars', 'Eclairs') and
SaleDate between '2022-02-01' and '2022-02-07'
GROUP BY products.Product
Order BY(total_Boxes) desc;
```

	Product	total_Boxes
▶	Eclairs	1019
	Milk Bars	818

5. 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;
select*,
case when weekday(SalesDate) = 2 then 'wednesday shipment'
else
end as 'w shipment'
from sales
where Customers<100 and Boxes<100;
```

	SPID	GeoID	PID	SaleDate	Amount	Customers	Boxes
►	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
	SP20	G6	P19	2021-01-06 00:00:00	637	79	91
	SP05	G5	P04	2021-01-08 00:00:00	364	14	21
	SP08	G4	P16	2021-01-12 00:00:00	721	45	24
	SP09	G1	P19	2021-01-13 00:00:00	1078	76	77
	SP24	G4	P07	2021-01-14 00:00:00	1239	97	50
	SP08	G6	P10	2021-01-14 00:00:00	1127	97	54
	SP04	G4	P06	2021-01-14 00:00:00	1211	37	61
	SP06	G4	P08	2021-01-15 00:00:00	308	91	19
	SP04	G5	P04	2021-01-18 00:00:00	1428	55	76
	SP08	G6	P06	2021-01-19 00:00:00	161	95	10
	SP06	G5	P15	2021-01-19 00:00:00	742	80	53
	SP04	G4	P22	2021-01-20 00:00:00	1155	34	45
	SP25	G4	P13	2021-01-22 00:00:00	1358	68	68



# HARD PROBLEMS

- 1. What are the names of Salesperson who had at least one shipment (sale) in the first days of January 2022?

```
select distinct salesperson
from sales
join people on sales.SPID = people.SPID
where SaleDate between '2022-01-01' and '2022-01-07';
```

	salesperson
▶	Keldi Walkden
	Van Tuxwell
	Beverie Moffet
	Dotty Strutley
	Gigi Bohling
	Roddy Speechley
	Marney O'Brien
	Karlen McCaffrey
	Dennison Crosswaite
	Mallorie Waber
	Madelene Upcott
	Andria Kimpton
	Jehu Rudeforth
	Oby Sorrel
	Husein Augar
	Ches Bonnell
	Wilone O'Kielt

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

```
select people.Salesperson
from people
where SPID not in
(select distinct SPID from sales where SaleDate between '2022-01-01' and '2022-01-07');
```

	Salesperson
▶	Janene Hairsine
	Niall Selesnick
	Ebonee Roxburgh
	Zach Polon
	Orton Livick
	Gray Seamon
	Benny Karolovsky
	Dyna Doucette



3. How many times we shipped more Than 1,000 boxes in each month?

```
select year(SaleDate) 'Year', month(SaleDate) 'MONTH', count(*) 'Time we shipped 1k boxes'
from sales
where Boxes > 1000
group by year(SaleDate) , month(SaleDate)
order by year(SaleDate) , month(SaleDate);
```

	Year	MONTH	Time we shipped 1k boxes
►	2021	1	18
	2021	2	23
	2021	3	32
	2021	4	27
	2021	5	15
	2021	6	26
	2021	7	21
	2021	8	27
	2021	9	19
	2021	10	31
	2021	11	27
	2021	12	22
	2022	1	88
	2022	2	38
	2022	3	36

4. Did we ship at least one box of 'After Nines' to 'New Zealand' on all the months?

```
SET @product_name = 'After Nines';
SET @country_name = 'New Zealand';

SELECT YEAR(s.SaleDate) AS 'Year', MONTH(s.SaleDate) AS 'Month',
IF(SUM(s.bboxes) >1, 'Yes','No') AS 'Status'
FROM sales s
JOIN products pr ON pr.PID = s.PID
JOIN geo g ON g.GeoID = s.GeoID
WHERE pr.Product = @product_name AND g.Geo = @country_name
GROUP BY YEAR (s.SaleDate), MONTH (s.SaleDate)
ORDER BY YEAR (s.SaleDate), MONTH (s.SaleDate);
```

	Year	Month	Status
►	2021	1	Yes
	2021	2	Yes
	2021	3	Yes
	2021	4	Yes
	2021	5	Yes
	2021	6	Yes
	2021	7	Yes
	2021	8	Yes
	2021	9	Yes
	2021	10	Yes
	2021	11	Yes
	2021	12	Yes
	2022	1	Yes
	2022	2	Yes
	2022	3	Yes

## 5. India or Australia? Who buys More Chocolate Boxes on a monthly basis?

```
SELECT YEAR(s.SaleDate) AS 'Year', MONTH(s.SaleDate) AS 'Month',  
SUM(CASE WHEN geo.Geo = 'India' THEN Boxes ELSE 0 END) AS 'Indian Boxes',  
SUM(CASE WHEN geo.Geo = 'Australia' THEN Boxes ELSE 0 END) AS 'Australia Boxes'  
FROM sales s  
JOIN geo ON geo.GeoID = s.GeoID  
GROUP BY YEAR (s.SaleDate), MONTH(s.SaleDate)  
ORDER BY YEAR (s.SaleDate), MONTH(s.SaleDate);
```

	Year	Month	Indian Boxes	Australia Boxes
▶	2021	1	23937	25210
	2021	2	39717	27961
	2021	3	39787	28123
	2021	4	22514	35261
	2021	5	27531	32213
	2021	6	26518	29585
	2021	7	18924	29310
	2021	8	35982	33296
	2021	9	27738	24832
	2021	10	32084	33218
	2021	11	40038	36449
	2021	12	34061	32593
	2022	1	67665	66647
	2022	2	20995	21467
	2022	3	32883	26371