CHOCOLATES SALES

REPORT USING

SQL QURIES

Retrieve all sales transactions where the number of boxes sold is between 0 and 50, inclusive?

```sql
select * from sales
where Boxes>=0 and Boxes<=50;
```

SPID	GeoID	PID	SaleDate	Amount	Customers	Boxes
SP01	G4	P15	2021-01-01 00:00:00	259	32	22
SP14	G5	P16	2021-01-01 00:00:00	1036	370	37
SP12	G6	P09	2021-01-04 00:00:00	147	9	11
SP04	G1	P20	2021-01-06 00:00:00	644	116	34
SP10	G2	P01	2021-01-08 00:00:00	420	196	14
SP05	G5	P04	2021-01-08 00:00:00	364	14	21
SP08	G6	P04	2021-01-08 00:00:00	357	185	17
SP11	G6	P01	2021-01-12 00:00:00	189	123	8
SP01	G3	P19	2021-01-12 00:00:00	490	188	35
SP08	G4	P16	2021-01-12 00:00:00	721	45	24
SP08	G6	P07	2021-01-13 00:00:00	728	234	32
SP24	G4	P07	2021-01-14 00:00:00	1239	97	50
SP13	G2	P04	2021-01-14 00:00:00	35	142	3

Display the sale date, total amount, number of boxes sold, and the average amount per box for each transaction from the sales table?

```sql
select SaleDate,Amount,Boxes,Amount/Boxes from sales;
```

SaleDate	Amount	Boxes	Amount/Boxes
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
2021-01-01 00:00:00	4039	176	22.9489

Retrieve all sales records where the sale amount exceeds 10,000 and order them in ascending order by the amount?

```
select * from sales
where Amount >10000
order by Amount;
```

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
SP24	G2	P16	2021-11-02 00:00:00	10024	10	358
SP11	G1	P15	2021-06-02 00:00:00	10031	5	912
SP06	G3	P20	2022-01-21 00:00:00	10031	41	669
SP15	G2	P10	2021-10-05 00:00:00	10038	14	457
SP23	G1	P20	2021-10-21 00:00:00	10038	265	558
SP18	G1	P12	2022-03-23 00:00:00	10038	17	457
SP15	G3	P21	2021-07-30 00:00:00	10045	145	670
SP14	G1	P06	2022-01-12 00:00:00	10045	7	773
SP15	G5	P14	2021-10-13 00:00:00	10052	214	1117
SP11	G2	P03	2021-07-20 00:00:00	10059	284	592
SP13	G3	P15	2021-02-04 00:00:00	10066	173	420
SP20	G4	P17	2022-01-21 00:00:00	10066	246	1007

Retrieve all sales records with Geoid = 'g1', ordering the results first by PID in ascending order then by Amount in descending order?

```sql
select * from sales
where Geoid='g1'
order by PID,Amount desc;
```

SPID	GeoID	PID	SaleDate	Amount	Customers	Boxes
SP14	G1	P01	2022-02-25 00:00:00	22897	43	1347
SP21	G1	P01	2022-01-07 00:00:00	18130	24	1008
SP11	G1	P01	2021-01-27 00:00:00	17402	43	697
SP08	G1	P01	2021-09-13 00:00:00	16681	274	596
SP08	G1	P01	2022-01-10 00:00:00	16121	55	896
SP23	G1	P01	2021-05-03 00:00:00	13958	185	451
SP17	G1	P01	2022-01-17 00:00:00	13923	478	871
SP11	G1	P01	2021-11-29 00:00:00	13419	210	1119
SP04	G1	P01	2021-02-04 00:00:00	12418	113	1129
SP25	G1	P01	2021-06-30 00:00:00	10234	114	853
SP22	G1	P01	2021-10-29 00:00:00	8932	56	993
SP02	G1	P01	2022-03-30 00:00:00	8876	445	888
SP22	G1	P01	2022-02-14 00:00:00	8820	251	519
SP07	G1	P01	2021-02-01 00:00:00	8715	24	282
SP25	G1	P01	2021-12-15 00:00:00	8610	27	278
SP16	G1	P01	2021-03-05 00:00:00	8456	222	940

Your write an SQL query to retrieve all sales records where the amount is greater than 10,000 and the sale date is on or after January 1, 2022?

```
select * from sales
where Amount>10000 and SaleDate>='2022-01-01';
```

SPID	GeoID	PID	SaleDate	Amount	Customers	Boxes
SP15	G3	P11	2022-01-05 00:00:00	14553	152	910
SP16	G3	P22	2022-01-28 00:00:00	10255	53	733
SP04	G4	P05	2022-01-28 00:00:00	16800	92	800
SP05	G1	P02	2022-01-21 00:00:00	16121	487	621
SP21	G2	P22	2022-01-11 00:00:00	12481	177	1041
SP24	G6	P17	2022-01-03 00:00:00	12145	55	1013
SP24	G1	P17	2022-01-07 00:00:00	14665	299	1467
SP12	G5	P04	2022-01-03 00:00:00	13048	154	653
SP08	G6	P13	2022-01-18 00:00:00	10192	228	1274
SP21	G4	P14	2022-01-07 00:00:00	11949	175	1328
SP22	G5	P08	2022-01-11 00:00:00	13139	371	939
SP20	G2	P14	2022-01-06 00:00:00	14777	110	2463
SP06	G2	P20	2022-01-21 00:00:00	12341	127	1029

Retrieve sale date, sale amount, salesperson name, and salesperson ID by joining the sales and people tables?

```sql
select   s.saledate,s.amount,p.salesperson,s.spid,p.spid
from sales s
join people p on p.spid=s.spid;
```

saledate	amount	salesperson	spid	spid
2021-01-01 00:00:00	8414	Barr Faughny	SP01	SP01
2021-01-01 00:00:00	532	Dennison Crosswaite	SP02	SP02
2021-01-01 00:00:00	5376	Karlen McCaffrey	SP12	SP12
2021-01-01 00:00:00	259	Barr Faughny	SP01	SP01
2021-01-01 00:00:00	5530	Beverie Moffet	SP19	SP19
2021-01-01 00:00:00	2184	Rafaelita Blaksland	SP17	SP17
2021-01-01 00:00:00	1057	Oby Sorrel	SP20	SP20
2021-01-01 00:00:00	1036	Dotty Strutley	SP14	SP14
2021-01-01 00:00:00	4039	Brien Boise	SP10	SP10
2021-01-01 00:00:00	12894	Curtice Advani	SP06	SP06
2021-01-01 00:00:00	4669	Madelene Upcott	SP18	SP18

Retrieve the sale date, sale amount, and categorize the amount into ranges like 'under 1k', 'under 5k', 'under 10k', and '10k or more' using the CASE expression in SQL?

```sql
select saledate,amount,
    case    when amount<1000 then'under 1k'
            when amount<5000 then'under 5k'
            when amount<10000 then 'under 10k'
        else'1ok or more'
    end as'amount category'
from sales;
```

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
2021-01-01 00:00:00	2184	under 5k
2021-01-01 00:00:00	1057	under 5k
2021-01-01 00:00:00	1036	under 5k
2021-01-01 00:00:00	4039	under 5k
2021-01-01 00:00:00	12894	1ok or more
2021-01-01 00:00:00	4669	under 5k
2021-01-01 00:00:00	6377	under 10k
2021-01-01 00:00:00	4599	under 5k
2021-01-01 00:00:00	2751	under 5k
2021-01-01 00:00:00	15596	1ok or more
2021-01-01 00:00:00	8561	under 10k

write a query to retrieve the sale date, amount, salesperson, product, and team for all sales under 500 where the salesperson's team is 'delish'?

```sql
select s.SaleDate,s.Amount,p.Salesperson,Product,p.Team
from sales s
join people p on p.SPID=s.SPID
join products pr on pr.PID=s.PID
where s.Amount<500 and p.team='Delish';
```

SaleDate	Amount	Salesperson	Product	Team
2021-01-08 00:00:00	364	Gigi Bohling	Raspberry Choco	Delish
2021-01-14 00:00:00	35	Jan Morforth	Raspberry Choco	Delish
2021-01-15 00:00:00	308	Curtice Advani	99% Dark & Pure	Delish
2021-02-04 00:00:00	182	Camilla Castle	Camilla Castle hoco	Delish
2021-02-04 00:00:00	392	Jan Morforth	Almond Choco	Delish
2021-02-12 00:00:00	21	Jan Morforth	99% Dark & Pure	Delish
2021-02-15 00:00:00	343	Roddy Speechley	White Choc	Delish
2021-02-17 00:00:00	133	Camilla Castle	Drinking Coco	Delish
2021-02-22 00:00:00	329	Dotty Strutley	White Choc	Delish
2021-02-23 00:00:00	168	Gigi Bohling	Caramel Stuffed Bars	Delish
2021-03-03 00:00:00	420	Dotty Strutley	Milk Bars	Delish
2021-03-04 00:00:00	448	Gigi Bohling	Orange Choco	Delish
2021-03-05 00:00:00	448	Wilone O'Kielt	Drinking Coco	Delish
2021-03-08 00:00:00	161	Gigi Bohling	Choco Coated Almonds	Delish
2021-03-09 00:00:00	154	Roddy Speechley	Spicy Special Slims	Delish
2021-03-15 00:00:00	371	Roddy Speechley	Mint Chip Choco	Delish

Retrieve the sale date, salesperson ID, amount, team, salesperson, and product for all sales under 800 where the team is empty and the sale occurred in either New Zealand or India, ordered by sale date?

```sql
select s.SaleDate,s.SPID,s.amount,p.Team,p.Salesperson,pr.product
from sales s
join people p on p.SPID=s.SPID
join products pr on s.PID=pr.pid
join geo g on g.geoid=s.geoid
where s.Amount<800 and p.team=''
and g.geo in('newzealand','india')
order by SaleDate;
```

SaleDate	SPID	amount	Team	Salesperson	product
2021-03-15 00:00:00	SP08	588		Ches Bonnell	Manuka Honey Choco
2021-04-07 00:00:00	SP21	252		Mallorie Waber	Eclairs
2021-04-14 00:00:00	SP21	546		Mallorie Waber	70% Dark Bites
2021-05-03 00:00:00	SP21	364		Mallorie Waber	Orange Choco
2021-06-11 00:00:00	SP17	763		Rafaelita Blaksland	White Choc
2021-08-24 00:00:00	SP17	84		Rafaelita Blaksland	70% Dark Bites
2021-09-13 00:00:00	SP17	476		Rafaelita Blaksland	Eclairs
2021-09-29 00:00:00	SP17	427		Rafaelita Blaksland	Almond Choco
2021-11-24 00:00:00	SP21	686		Mallorie Waber	Spicy Special Slims
2021-12-17 00:00:00	SP21	644		Mallorie Waber	Smooth Sliky Salty
2022-01-07 00:00:00	SP22	21		Jehu Rudeforth	Caramel Stuffed Bars
2022-03-07 00:00:00	SP08	441		Ches Bonnell	Milk Bars

Retrieve the product category, team, total number of boxes sold, and total sales amount, grouped by product category and team, excluding empty teams and ordering by product category and team?

```sql
select pr.category,p.team,sum(boxes),sum(amount)
from sales s
join people p on p.spid=s.spid
join products pr on pr.PID=s.pid
where p.team<>''
group by pr.category,p.team
order by pr.category,p.team;
```

category	team	sum(boxes)	sum(amount)
Bars	Delish	456609	6862975
Bars	Jucies	340348	5113521
Bars	Yummies	406265	6201601
Bites	Delish	273424	4525724
Bites	Jucies	201838	3284309
Bites	Yummies	243030	4017342
Other	Delish	194383	2464455
Other	Jucies	145619	1872563
Other	Yummies	184056	2311428

Retrieve the top 5 products with the highest total sales amounts, ordered in descending order of the total amount?

```
select pr.product,sum(s.amount)as'Total Amount'
from sales s
join products pr on pr.pid=s.pid
group by pr.product
order by 'Total Amount'desc
limit 5;
```

product	Total Amount
Raspberry Choco	2090242
White Choc	1913296
99% Dark & Pure	2023070
Baker's Choco Chips	1906583
Manuka Honey Choco	1965089

Retrieve the sale date, amount, number of boxes sold, and the day of the week for sales that occurred on a Friday?

```sql
select SaleDate,Amount,Boxes,weekday(saledate) as 'day of week'from sales
where weekday(saledate)=4;
```

SaleDate	Amount	Boxes	day of week
2021-01-01 00:00:00	8414	495	4
2021-01-01 00:00:00	532	54	4
2021-01-01 00:00:00	5376	269	4
2021-01-01 00:00:00	259	22	4
2021-01-01 00:00:00	5530	179	4
2021-01-01 00:00:00	2184	122	4
2021-01-01 00:00:00	1057	71	4
2021-01-01 00:00:00	1036	37	4
2021-01-01 00:00:00	4039	176	4
2021-01-01 00:00:00	12894	478	4
2021-01-01 00:00:00	4669	180	4
2021-01-01 00:00:00	6377	246	4
2021-01-01 00:00:00	4599	256	4
2021-01-01 00:00:00	2751	251	4

Calculate the total revenue from sales that occurred between January 1, 2021, and December 31, 2022?

```sql
SELECT SUM(amount) AS Total_Revenue
FROM sales
WHERE saledate BETWEEN '2021-01-01' AND '2022-12-31';
```

	Total_Revenue
▶	43561546