

# SQL PROJECT SOLUTION

## TASK 1

```
create database shop;  
create table shopping_history (  
    product varchar not null,  
    quantity integer not null,  
    unit_price integer not null  
);
```

```
insert into shopping_history values('milk',5,20),  
('chocolate',3,10),  
('milk',2,20),  
('bread',4,3),  
('chocolate',8,5),  
('milk',6,15),  
('biscuit',5,10),  
('bread',5,2),  
('milk',6,15),  
('biscuit',10,20),  
('biscuit',3,10),  
('chocolate',1,90);
```

```
select * from shopping_history;
```

```
select product,sum(quantity*unit_price) as total_price from shopping_history  
group by product  
order by product desc;
```

## OUTPUT

	PRODUCT	...	TOTAL_PRICE
1	milk		320
2	chocolate		160
3	bread		22
4	biscuit		280

## **TASK 2**

```
create database phone;
create or replace table phones(
    name varchar(20) not null unique,
    phone_number integer not null unique
);
```

```
create or replace table calls (
    id integer not null,
    caller integer not null,
    callee integer not null,
    duration integer not null,
    unique(id)
);
```

```
insert into phones values('John',6356),
('Addison',4315),
('Kate',8003),
('Ginny',9831);
```

```
select * from phones;
```

```
insert into calls values
(65,8003,9831,7),
(100,9831,8003,3),
(145,4315,9831,18);
```

```
select * from calls;
```

```
with total as
(
    select caller as phone_number,sum(duration) as dur
    from calls
    group by caller
    union all
    select callee as phone_number,sum(duration) as dur
    from calls
```

```

        group by callee
    )
select name from phones
join total
on phones.phone_number = total.phone_number
group by name
having sum(dur)>=10
order by name;

```

## OUTPUT

	NAME
1	Addison
2	Ginny
3	Kate

## TASK 3

```

create database bank;
create or replace table transactions(
    amount integer not null,
    date1 date not null
);

```

```

insert into transactions values

```

```

(1,'2020-06-29'),
(35,'2020-02-20'),
(-50,'2020-02-03'),
(-1,'2020-02-26'),
(-200,'2020-08-01'),
(-44,'2020-02-07'),
(-5,'2020-02-25'),
(1,'2020-06-29'),
(1,'2020-06-29'),
(-100,'2020-12-29'),

```

```
(-100,'2020-12-30'),  
(-100,'2020-12-31');
```

```
select * from transactions;
```

```
WITH monthlycredittransactions
```

```
AS (SELECT date_part('month', date1) AS cred_month,  
        Sum(CASE  
            WHEN amount < 0 THEN Abs(amount)  
            ELSE 0  
        END)  
        AS creditamt,  
        Sum(CASE  
            WHEN amount < 0 THEN 1  
            ELSE 0  
        END)  
        AS numofcredit  
FROM transactions  
GROUP BY 1),
```

```
paycredit
```

```
AS (SELECT ( 12 - count(1) ) * 5 AS charge,  
        1  
        AS id  
FROM monthlycredittransactions  
WHERE creditamt >= 100  
        AND numofcredit >= 3),
```

```
t
```

```
AS (SELECT Sum(amount) AS amount,  
        1 AS id  
FROM transactions)  
SELECT amount - charge AS balance  
FROM t  
LEFT JOIN paycredit  
ON t.id = paycredit.id
```

OUTPUT

		BALANCE
1		-612
		Activa
		Go to Se