Task-1

```
USE DATABASE PK_INEURON;


CREATE TABLE shopping_history
(
  product varchar(30) not null,
  quantity int not null,
  unit_price int not null
);
SELECT count(*) FROM "PK_INEURON"."PUBLIC"."SHOPPING_HISTORY";
INSERT INTO shopping_history VALUES('milk',3,10);
INSERT INTO shopping_history VALUES('bread',7,3);
INSERT INTO shopping_history VALUES('bread',5,2);
INSERT INTO shopping_history VALUES('curd',4,15);
INSERT INTO shopping_history VALUES('ghee',6,25);
INSERT INTO shopping_history VALUES('milk',8,14);
INSERT INTO shopping_history VALUES('cheese',5,30);
INSERT INTO shopping_history VALUES('curd',2,20);
INSERT INTO shopping_history VALUES('ghee',3,35);
INSERT INTO shopping_history VALUES('bread',9,5);


select product,sum(total) as total_price from(
SELECT product,quantity,unit_price,quantity*unit_price as total from
"PK_INEURON"."PUBLIC"."SHOPPING_HISTORY")
group by product order by product;
```

Task-2

```
USE DATABASE PK_INEURON;
create table phones (
name varchar(20) not null unique,
phone_number integer not null unique
);
create table calls(
id integer not null,
caller integer not null,
callee integer not null,
duration integer not null,
unique(id)
);
insert into phones values('Jack',1234),
('Lena',3333),
('Mark',9999),
('Anna',7582);
insert into calls values(25,1234,7582,8),
(7,9999,7582,1),
(18,9999,3333,4),
(2,7582,3333,3),
(3,3333,1234,1),
(21,3333,1234,1);

CREATE TABLE CALLERS AS
SELECT CALLER,DURATION FROM "PK_INEURON"."PUBLIC"."CALLS";
CREATE TABLE CALLEES AS
SELECT CALLEE,DURATION FROM "PK_INEURON"."PUBLIC"."CALLS";


SELECT DISTINCT NAME FROM (
SELECT DISTINCT NAME,SUM(DURATION) OVER (PARTITION BY CALLEE) AS C1
FROM "PK_INEURON"."PUBLIC"."PHONES" AS A
LEFT JOIN "PK_INEURON"."PUBLIC"."CALLEES" AS B
```

```
ON A.phone_number=B.callee
UNION ALL
SELECT DISTINCT NAME,SUM(DURATION) OVER (PARTITION BY CALLER) AS C1
FROM "PK_INEURON"."PUBLIC"."PHONES" AS A
LEFT JOIN "PK_INEURON"."PUBLIC"."CALLERS" AS C
ON  A.phone_number=C.caller) GROUP BY NAME HAVING SUM(C1)>=10 ORDER BY NAME;
```

Task-3

```
USE PK_INEURON;
CREATE TABLE TRANSATIONS(
  AMOUNT INTEGER NOT NULL,
  DATE date NOT NULL
);

create table transactions(
amount integer not null,
Date DATE not null
);

insert into transactions(amount,Date) Values (1000,'2020-01-06');
insert into transactions(amount,Date) Values(-10,'2020-01-14');
insert into transactions(amount,Date) Values(-75,'2020-01-20');
insert into transactions(amount,Date) Values(-5,'2020-01-25');
insert into transactions(amount,Date) Values(-4,'2020-01-29');
insert into transactions(amount,Date) Values(2000,'2020-03-10');
insert into transactions(amount,Date) Values(-75,'2020-03-12');
insert into transactions(amount,Date) Values(-20,'2020-03-15');
insert into transactions(amount,Date) Values(40,'2020-03-15');

insert into transactions(amount,Date) Values(-50,'2020-03-17');

insert into transactions(amount,Date) Values(200,'2020-10-10');

insert into transactions(amount,Date) Values(-200,'2020-10-10');

SELECT SUM(FINAL_AMOUNT) FROM (

SELECT AMOUNT AS FINAL_AMOUNT FROM "PK_INEURON"."PUBLIC"."TRANSACTIONS" WHERE AMOUNT>0

UNION ALL

SELECT SUM(AMOUNT)-(12-COUNT(MONT))*5 AS FINAL_AMOUNT FROM

(

SELECT

CASE

WHEN C>=3 AND NEGATIVE_AMOUNT<=-100 THEN NEGATIVE_AMOUNT

ELSE NEGATIVE_AMOUNT-5 END AS AMOUNT,

MONT

FROM (

SELECT SUM(AMOUNT) AS NEGATIVE_AMOUNT,COUNT(*) AS C,MONT FROM (

SELECT DISTINCT AMOUNT,DATE,EXTRACT(MONTH FROM Date) AS MONT

 FROM "PK_INEURON"."PUBLIC"."TRANSACTIONS") WHERE AMOUNT<0

 GROUP BY MONTH )));
```