create database FSDA\_ASSIGNMENTS;

use database FSDA\_ASSIGNMENTS;

create table shopping\_history(

product varchar not null,

quantity integer not null,

unit\_price integer not null

);

insert into shopping\_history values('milk',2,25);

insert into shopping\_history values('bread',5,30);

insert into shopping\_history values('chocolate',10,20);

insert into shopping\_history values('Rice',1,1000);

insert into shopping\_history values('Soap',3,40);

insert into shopping\_history values('Drink',2,60);

insert into shopping\_history values('Oil',3,100);

insert into shopping\_history values('chocolate',2,50);

insert into shopping\_history values('Dish wash',5,20);

insert into shopping\_history values('Maggie',10,20);

insert into shopping\_history values('Drink',1,70);

insert into shopping\_history values('Soap',1,50);

select \* from shopping\_history;

select product, sum(quantity\*unit\_price) as total\_price from shopping\_history group by product order by lower(product) desc;

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('Raj',9633);

insert into phones values('Satya',8143);

insert into phones values('Nitya',9233);

insert into phones values('Satish',9893);

insert into phones values('Harish',9087);

insert into phones values('Kavya',9876);

insert into phones values('Nikhil',8412);

insert into phones values('Harsha',7998);

insert into phones values('pinky',7654);

insert into phones values('Ram',6303);

select \* from phones;

insert into calls values(7,9233,9876,3);

insert into calls values(21,7654,8412,1);

insert into calls values(4,7998,9633,1);

insert into calls values(9,9233,9893,2);

insert into calls values(11,8142,9087,1);

insert into calls values(16,9233,9876,1);

insert into calls values(23,8412,7654,2);

insert into calls values(5,9087,9876,3);

insert into calls values(17,9893,9233,2);

insert into calls values(28,9876,9087,1);

insert into calls values(19,9893,8412,3);

insert into calls values(10,7654,9876,2);

insert into calls values(25,9233,8143,3);

insert into calls values(45,6303,8143,12);

select \* from calls;

with caller\_d(caller\_num,caller\_duration) as

(select caller,sum(duration) from calls group by caller),

callee\_d(callee\_num,callee\_duration) as

(select callee,sum(duration) from calls group by callee),

final\_d(caller\_num,callee\_num,total\_duration,caller\_duration,callee\_duration) as

(select caller\_num,callee\_num,caller\_duration+callee\_duration,caller\_duration,callee\_duration from callee\_d

full outer join caller\_d on caller\_num=callee\_num),

ad\_names(phn,name) as

(select case

when caller\_duration>=10 then caller\_num

when callee\_duration>=10 then callee\_num

when total\_duration>=10 then caller\_num

end as phn,name from final\_d join phones on phn=phone\_number)

select name from ad\_names order by lower(name);

create table transactions(

amount integer not null,

date date not null

);

insert into transactions values(1000,'2020-01-06');

insert into transactions values(-10,'2020-01-14');

insert into transactions values(-75,'2020-01-06');

insert into transactions values(-5,'2020-01-20');

insert into transactions values(-4,'2020-01-25');

insert into transactions values(2000,'2020-01-29');

insert into transactions values(-75,'2020-03-10');

insert into transactions values(-20,'2020-03-12');

insert into transactions values(40,'2020-03-15');

insert into transactions values(-50,'2020-03-17');

insert into transactions values(200,'2020-10-10');

insert into transactions values(-200,'2020-10-10');

select \* from transactions;

with total(c) as

(select sum(amount) from transactions),

credit\_transactions(amount,date) as

(select amount,date from transactions where amount<0),

feeless\_months(months,feeless\_month\_transactions,total\_sum) as

(select month(date),count(\*),sum(amount) from credit\_transactions group by month(date) having sum(amount)<=-100 and count(\*)>=3),

c\_months(free\_months) as

(select count(\*) from feeless\_months)

select c-(12-free\_months)\*5 as balance from total join c\_months;