**Task 1 :create database if not exists assignments;**

**create table shopping\_history(**

**product varchar(40) not null,**

**quantity int not null,**

**Unit\_price int not null);**

**insert into shopping\_history values**

**("Apple",10,20),**

**("Biscuit",2,50),**

**("Apple",2,25),**

**("shoe Polish",1 ,60),**

**("shoe", 1,1500),**

**("Shirt",2,1499),**

**("Biscuit",10,155);**

**with a as (**

**select product, quantity,Unit\_price,(quantity \* Unit\_price)as total\_price from shopping\_history group by 1,2,3**

**)**

**select product,sum(total\_price)as total\_price from a group by product order by 1;**

**Task 2.1**

create table telecommunication\_phone

(`Name` varchar(10),

phone\_number int);

insert into telecommunication\_phone values("Nikhil",12345),

("Rahul",56789),

("Abhi",13579),

("Jay",24680);

select \* from telecommunication\_phone

create table telecommunication\_call

(idd int,

caller\_phone int,

Callee\_phone int,

duration int)

insert into telecommunication\_call values(01,12345,24680,8),

(12,56789,13579,1),

(32,13579,12345,4),

(42,13579,56789,4),

(244,13579,12345,2),

(268,24680,12345,6),

(118,56789,12345,2);

**select \* from telecommunication\_call;**

**select y.`Name`, z.\* from(with a as(select caller\_phone,sum(duration)duration from telecommunication\_call group by caller\_phone**

**union**

**select callee\_phone,sum(duration)duration from telecommunication\_call group by callee\_phone)**

**select caller\_phone,sum(duration)duration from a group by caller\_phone) as z inner join telecommunication\_phone y on y.phone\_number = z.caller\_phone**

**where duration >= 10;**

**Task 2.2**

**use assignments;**

**create table telecommunication\_phone**

**(`Name` varchar(10),**

**phone\_number int);**

**insert into telecommunication\_phone values("Nikhil",12345),**

**("Rahul",56789),**

**("Abhi",13579);**

**select \* from telecommunication\_phone**

**create table telecommunication\_call**

**(idd int,**

**caller\_phone int,**

**Callee\_phone int,**

**duration int)**

**insert into telecommunication\_call values(01,12345,24680,8),**

**(12,56789,13579,1),**

**(32,13579,12345,4),**

**(42,13579,56789,4),**

**(244,13579,12345,1),**

**(268,24680,12345,1),**

**(118,56789,12345,2);**

**select \* from telecommunication\_call;**

**select y.`Name` from(with a as(select caller\_phone,sum(duration)duration from telecommunication\_call group by caller\_phone**

**union**

**select callee\_phone,sum(duration)duration from telecommunication\_call group by callee\_phone)**

**select caller\_phone,sum(duration)duration from a group by caller\_phone) as z inner join telecommunication\_phone y on y.phone\_number = z.caller\_phone;**

**Task 3.1 :**

**create database if not exists Practices;**

**use practices ;**

**create table if not exists transactions**

**(amount int not null,**

**date\_info date);**

**insert into transactions values (**

**1000, '2020-01-06' ) ,**

**(-10, '2020-01-14' ) ,**

**(-75, '2020-01-20' ),**

**(-5, '2020-01-25' )**

**, (-4, '2020-01-29' )**

**,( 2000, '2020-03-10' )**

**, (-75, '2020-03-12' )**

**, (-20, '2020-03-15' )**

**, ( 40, '2020-03-15' )**

**,(-50, '2020-03-17' )**

**,(200, '2020-10-10' )**

**, (-200, '2020-10-10' ) ;**

**select \* from transactions;**

**### monthly transcation atleast 3 and credit card transaction <= -100**

**select (sum(amount)-(12 -(with a as(select sum(amount)as amount,substring(date\_info,6,2) as month,count(amount)as payment\_count from transactions where amount < 0 group by 2)select count(\*) from a where payment\_count >= 3 and amount <= -100))\*5) balance from transactions;**

**Task 3.2**

**create database if not exists Practices;**

**use practices ;**

**create table if not exists transactions2**

**(amount int not null,**

**date\_info date);**

**insert into transactions2 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 transactions2;**

**### monthlt transcation atleast 3 and credit card transaction ><= -100**

**select (sum(amount)-(12 -(with a as(select sum(amount)as amount,substring(date\_info,6,2) as month,count(amount)as payment\_count from transactions2 where amount < 0 group by 2)**

**select count(\*) from a where payment\_count >= 3 and amount <= -100))\*5) balance from transactions2;**

**Task 3.3**

**create table if not exists transactions3**

**(amount int not null,**

**date\_info date);**

**insert into transactions3 values (**

**6000, '2020-04-03' ) ,**

**(5000, '2020-04-02' ) ,**

**(4000, '2020-04-01' ),**

**(3000, '2020-03-01' )**

**, (2000, '2020-02-01' )**

**,( 1000, '2020-01-01' ) ;**

**select sum(amount)-(12\*5) from transactions3;**