use FinalProject;

-- Task 4

-- Q1

Select count(distinct name) as '# Customers with Balance > $0' from vwCustomerService

where balance >0;

Select distinct name, balance from vwCustomerService

where balance >0;

-- Q2

Select distinct currreadingdate, prevmeterreadingdate, meternumber, address from vwReader;

-- Q3

select name, activationdt, address, meternumber, prevmeterreading, prevmeterreadingdate, currreadingdate, currmeterreading, billdate, billnumber, cost, paymentdate, amount

from vwcustomerservice;

-- Q4

Select count(MeterReadingID) from MeterReading

join Employee CurrReader on MeterReading.currReederID = CurrReader.EmployeeID

join Employee PrevReader on PrevReader.EmployeeID = MeterReading.PrevReederID

where

(CurrReader.name = 'Genvieve Creighton' or PrevReader.Name = 'Genvieve Creighton')

and (MeterReading.currReadingDate >='2019-05-01' and MeterReading.currReadingDate <='2019-12-30'

and MeterReading.prevmeterReadingDate >='2019-05-01' and MeterReading.prevmeterReadingDate <='2019-12-30');

-- Q5

Select BillNumber, billdate, prevmeterreading, prevmeterreadingdate, prevreadername, CurrMeterreading, CurrReadingDate, currReaderName

from vwManager

where BillNumber in ('1004', '1005', '1002')

group by BillNumber;

-- Q6

-- using tables because manager can see and edit all

Select name, sum(Consumption)

from meterreading

join bill on bill.meterreadingid = meterreading.meterreadingid

join customercontractaddrassoc ccaa on ccaa.customercontractaddrassocid = meterreading.customercontractaddrassocid

join customer on customer.customerid = ccaa.customerid

where currreadingdate >=' 2019-05-01' and currreadingdate <= '2019-12-30'

group by name

order by sum(consumption) desc limit 1;

-- Q7

Select avg(Consumption)

from meterreading

join bill on bill.meterreadingid = meterreading.meterreadingid

where currreadingdate >=' 2019-05-01' and currreadingdate <= '2019-12-30';

-- Q8

select name, SUM(consumption)

from meterreading

join bill on bill.meterreadingid = meterreading.meterreadingid

join customercontractaddrassoc ccaa on ccaa.customercontractaddrassocid = meterreading.customercontractaddrassocid

join customer on customer.customerid = ccaa.customerid

where currreadingdate >=' 2019-05-01' and currreadingdate < '2019-12-30'

group by name

having SUM(consumption) > 237.25 ;

-- Task 4.2

-- Q1

Insert into Customer (CustomerID, Name) values ('1111', 'John Doe');

select max(addressid) from address; -- 9

Insert into Address (AddressID, Address) values (10, '12345 East Yale Av. Canyon TX');

Select \* from Customer;

select \* from Address;

-- Q2

select max(meterreadingid) from meterreading; -- 14

select \* from employee where name like 'Genvieve%'; -- ID 216

select \* from meter where meternumber in (40, 34); -- ID 6, 7

select \* from contract where meterid in (6, 7); -- ContractID 6, 7

select \* from customercontractaddrassoc where contractid in (6, 7); -- customercontractaddrassocid 6, 7

insert into meterreading (meterreadingid, customercontractaddrassocid, meterid, currreederid, notes) values (15, 6, 6, 216, 'needs reading');

insert into meterreading (meterreadingid, customercontractaddrassocid, meterid, currreederid, notes) values (16, 7, 7, 216, 'needs reading');

-- Q3

select \* from vwReader where notes = 'needs reading'; -- meterreadingid 15, 16

update meterreading set currReadingDate = '2022-07-01', currMeterReading = 110, notes = '' where meterreadingid = 15;

update meterreading set currReadingDate = '2022-07-02', currMeterReading = 95, notes = '' where meterreadingid = 16;

select \* from meterreading;

-- Q4

select max(billid) from bill; -- 9

select max(billnumber) from bill; -- 2007

select \* from meterreading

left join bill on meterreading.meterreadingid = bill.meterreadingid

where bill.meterreadingid is null

and trim(notes) <> 'needs reading'; -- meterreadingid 15, 16 meterid 6, 7 Customercontractaddrassocid 6, 7

select currmeterreading - ifnull(prevmeterreading, 0) as consumption, meterreading.meterreadingid from meterreading

left join bill on meterreading.meterreadingid = bill.meterreadingid

where bill.meterreadingid is null

and trim(notes) <> 'needs reading'; -- consumption 15 - 110, 16 - 95

select \* from contract where meterid in (6, 7); -- rate 6 - .49, 7 - .29

insert into bill (billid, billnumber, billdate, balance, consumption, cost, meterreadingid, customercontractaddrassocid)

values (10, 2007, '2022-07-01', 0, 110, 110 \* .49, 15, 6),

(11, 2008, '2022-07-01', 0, 95, 95 \* .29, 15, 7);

select \* from bill;