

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

-- Q5

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```
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)
```

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```
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
```

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```
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;
```