

Relational Schema for BeHealthy Database

```
customer(  
  cid,  
  fname,  
  mname,  
  lname,  
  street,  
  city,  
  state,  
  zip,  
  sex,  
  dob,  
  email,  
  password,  
  phone_number,  
  emergency_contact,  
  type,  
  created,  
  age  
)
```

```
medicine_details(  
  mid,  
  name,  
  generic_name,  
  manufacturer,  
  prescription_drug,  
  net_dose,
```

discount_normal,
discount_prime,
discount_elite,
cautionary_note,
drug_type,
purpose,
adult_dose,
child_dose
)

supplier(
 sid,
 name,
 street,
 city,
 state,
 zip,
 phone_number,
 license_no,
 license_expiry_date
)

medicine_inventory(
 mid,
 lot_number,
 batch_number,
 purchase_date,
 mfg_date,
 expiry_date,

sid,
quantity,
sold_quantity,
cost_price,
mrp
)

cart_details(
cid,
mid,
quantity
)

invoice(
bill_id,
cid,
date,
net_amount,
net_discount,
delivery_charges,
payment_status
)

invoice_details(
bill_id,
mid,
lot_number,
quantity,
amount,

)

prescription(

bill_id,

doctor_reg_no,

prescription_date

)

prescription_details(

bill_id,

mid,

quantity

)

supplier_medicine(

sid,

mid,

last_purchase_price,

discount

)

supplier_order(

soid,

sid,

eid,

date,

net_amount,

status

)

```
supplier_order_details(  
    soid,  
    mid,  
    quantity,  
    purchase_rate  
)
```

```
employee(  
    eid,  
    role,  
    qualification,  
    experience,  
    salary  
)
```

SQL queries about BeHealthy Pharmacy application

Q1. Which medicine is sold the most in last 30 days along with its sold quantity?

```
with max_med(val) as  
(select max(tot_qty)  
 from( select mid, sum(quantity)  
 from invoice_details natural join invoice  
 where datediff(now(), date) < 30  
 group by mid  
 ) as med(mid, tot_qty))  
select mid, name, tot_qty  
 from (select mid, name, sum(quantity)  
 from invoice_details natural join medicine_details natural join invoice
```

```
where datediff(now(), date) < 30  
  
group by mid  
  
) as med(mid, name, tot_qty), max_med  
  
where med.tot_qty=max_med.val;
```

Q2. Which all medicines are due for expiry in next 180 days?

```
select mid, lot_number, name, expiry_date  
  
from medicine_inventory natural join medicine_details  
  
where datediff(expiry_date, now()) <= 360  
  
order by expiry_date, mid, lot_number;
```

Q3. How much bill amount is paid vs. unpaid in last one month?

```
select payment_status, sum(net_amount)  
  
from invoice  
  
#where datediff(now(), date) < 30  
  
group by payment_status;
```

Q4. Which all medicines are ordered to supplier sorted based on their quantity ordered?

```
select mid, name, sum(quantity) as tot_qty  
  
from supplier_order_details natural join medicine_details  
  
group by mid  
  
order by tot_qty desc;
```

Q5. Which all medicines have been ordered by customer with id '184' in last one month along with the quantity ordered?

```
select mid, sum(quantity) as monthly_order  
  
from invoice_details  
  
where bill_id=(  
  
select bill_id
```

```
from invoice
where cid=184 and datediff(now(), date) <= 30
)
group by mid
order by monthly_order desc;
```

Q6. What is the net profit for last one month (net profit = net_order_value - net_cost)?

```
with net_order_value(val) as
(select sum(net_amount)
from invoice
where datediff(now(), date) <= 30),
net_cost_value(val) as
(select sum(cost_price*invoice_details.quantity)
from invoice_details inner join medicine_inventory using (mid, lot_number)
where bill_id in (
select bill_id
from invoice
where datediff(now(), date) <= 30))
select net_order_value.val as net_order, net_cost_value.val as net_cost, net_order_value.val -
net_cost_value.val as net_profit
from net_order_value, net_cost_value;
```

Q7. Which all medicines are most frequently ordered in last one month along with the bills count in which they are ordered?

```
with most_freq(val) as
(select max(med_count)
from(
select mid, count(*)
from invoice_details
```

```

where bill_id in (
select bill_id
from invoice
where datediff(now(), date) <= 30)
group by mid
) as med_info(mid, med_count))
select med_info.mid, name, med_info.med_count as bill_count
from medicine_details, most_freq, (
select mid, count(*)
from invoice_details
where bill_id in (
select bill_id
from invoice
where datediff(now(), date) <= 30)
group by mid
) as med_info(mid, med_count)
where med_info.med_count=most_freq.val and medicine_details.mid=med_info.mid;

```

Q8. How many customers have no orders from past one year?

```

select count(distinct cid)
from customer

where cid not in (select eid from employee) and cid not in (select cid from invoice where
datediff(now(), date) <= 365);

```

Q9. Which all medicines have inventory stock less than 10% of their original quantity?

```

select mid, name, (sum(quantity) - sum(sold_quantity))/sum(quantity) as stock_sale_ratio
from medicine_inventory natural join medicine_details
group by mid
having stock_sale_ratio < .1

```



```
order by stock_sale_ratio;
```

Q10. Filter medicines based on their generic name and compute their original/sold quantity.

```
select generic_name, count(*) as variants, avg(net_qty) as net_qty, avg(net_sold) as net_sold
from medicine_details, (select mid, sum(quantity), sum(sold_quantity)
from medicine_inventory
group by mid) as med_info(mid, net_qty, net_sold)
where medicine_details.mid=med_info.mid
group by generic_name;
```

Q11. Write a query to display prime and normal customers count who are not the employee of BeHealthy Pharmacy.

```
select count(*) num
from customer
where type in ('prime', 'normal') and cid not in(select eid as cid
from employee);
```

Q12. Who is oldest customer associated with BeHealthy Pharmacy and since when he/she is associated?

```
with oldest(val) as
(select min(created)
from customer)
select concat(customer.fname, ' ', customer.lname) as 'name', created
from customer, oldest
where customer.created=oldest.val;
```

Q13. Which all bills are unpaid in last 100 days sorted based on bill date?

```
select payment_status, net_amount, date
from invoice
where datediff(now(), date) <= 100 and payment_status='unpaid'
```

order by date;

Q14. Which all medicines in stock have already expired?

```
select mid, lot_number, name, expiry_date
from medicine_inventory natural join medicine_details
where datediff(expiry_date, now()) <= 0;
```

Q15. Which all supplier orders are still pending?

```
select soid
from supplier_order
where status='pending';
```

Q16. How many customers have placed order in last one month?

```
select count(distinct cid)
from invoice
where datediff(now(), date) <= 30;
```

Q17. What is the average order value for last one month?

```
select avg(net_amount) as average_order_value
from invoice
where datediff(now(), date) <= 30;
```