

Simple SQL Queries

CS 210 - Principles of Information and Data Management

Return SQL code as text file plus results which workbench gave you (you can include them in the same txt file). Query + answer. As long as it is readable by a grader, it is fine - text, word, screenshot....but text is easiest.

1. Find all distinct drinkers whose phone numbers come from area code 917 and who like Budweiser or Bud (synonym!)

```
SELECT DISTINCT drinker
FROM Likes l, Drinkers d
WHERE
(l.beer='Budweiser' OR l.beer='Bud') AND
d.phone LIKE '917%' AND
d.name = l.drinker
    \ \ \

# drinker

### 2. What beers does Mike like?
\ \ \ sql
SELECT DISTINCT beer FROM Likes WHERE drinker='Mike'
```

beer

Blue Moon

Bud

Budweiser

Creamy Dark

Hefeweizen

Michelob Golden Draft Light

Original Premium Lager

Original Premium Lager Dog

Killian's

3. Which town has the most drinkers?

```
SELECT city
FROM Drinkers
GROUP BY city
ORDER BY count(*) DESC
LIMIT 1;
```

```
# city
```

```
Edison
```

4. What bars are frequented by drinkers from that town (3)?

```
SELECT DISTINCT bar
FROM Frequents f, Drinkers d
WHERE d.name = f.drinker AND
d.city = 'San Francisco';
```

```
# bar
'Blue Angel'
'Coconut Willie\'s Cocktail Lounge'
'The Blank Club'
```

5. Provide all bars which serve beers that Mike likes

```
SELECT DISTINCT s.bar
FROM Sells s, (SELECT beer FROM Likes WHERE drinker='Mike') AS b
WHERE s.beer = b.beer;
```

```
# bar

A.P. Stump's
Blue Angel
Blue Tattoo
Britannia Arms
Cabana
Caravan
Club 175
Coconut Willie's Cocktail Lounge
```

Gecko Grill
Giza Hookah Lounge
Hedley Club
Seven Bamboo
The Backbeat
The Blank Club
The Shark and Rose

6. Who likes at least one same beer that Joe or Mike like?

```
SELECT DISTINCT l.drinker
FROM Likes l, Likes l1, Likes l2
WHERE
(l.beer = l1.beer OR l.beer = l2.beer)
AND l.drinker != 'Joe' AND l.drinker != 'Mike';
```

```
# drinker
'John'
'Justin'
'Devarsh'
'Yuhan'
'Vince'
'Gunjan'
'Sahil'
'Jesse'
```

7. All bars which sell at least one beer which is liked by at least one drinker who frequents these bars

```
SELECT DISTINCT s.bar
FROM Sells s, Frequents f, Likes l
WHERE f.bar = s.bar AND
s.beer = l.beer AND
s.drinker = l.drinker;
```

```
# bar
'The Shark and Rose'
'Seven Bamboo'
'Gecko Grill'
```

```
'Caravan'  
'Cabana'  
'Blue Angel'  
'A.P. Stump\'s'
```

8. Drinkers who like some beers sold by Caravan bar

```
SELECT DISTINCT l.drinker  
FROM Likes l, Sells s  
WHERE l.beer = s.beer AND s.bar = 'Caravan'  
GROUP BY l.drinker HAVING count(*) > 1;
```

```
# drinker  
'John'  
'Mike'  
'Vince'  
'Gunjan'  
'Yuhan'
```

9. Bars which sell Budweiser and are frequented by some drinkers who like Budweiser

```
SELECT DISTINCT b.bar  
FROM  
(SELECT DISTINCT bar FROM Sells WHERE Sells.beer = 'Budweiser') as b,  
Frequents f,  
Likes l  
WHERE  
f.drinker = l.drinker  
AND l.beer = 'Budweiser'  
AND f.bar = b.bar
```

```
# bar  
'Cabana'  
'Caravan'  
'Gecko Grill'  
'Seven Bamboo'  
'The Shark and Rose'
```

10. Bars which are frequented by Mike and Steve

```
SELECT DISTINCT f1.bar
FROM Frequents f1, Frequents f2
WHERE
    f1.bar = f2.bar
    AND f1.drinker='Mike' AND f2.drinker='Steve'
```

```
# bar
null
```

11. Drinker who like at least two beers that Mike likes

```
SELECT COUNT(*), drinker
FROM Likes l1
WHERE beer in (
    SELECT beer
    FROM Likes l
    WHERE
        l.drinker = 'Mike'
        AND l1.drinker!=l.drinker
)
GROUP BY l1.drinker
HAVING COUNT(*)>1
```

```
# COUNT(*), drinker
'5', 'John'
'2', 'Justin'
'2', 'Gunjan'
'3', 'Yuhan'
```

12. Bars which sell at least 3 beers that Mike likes (do not use COUNT)

```
SELECT DISTINCT s1.bar
FROM
    Sells s1, Sells s2, Sells s3
WHERE
    s1.bar = s2.bar AND s2.bar = s3.bar
    AND s1.beer IN (SELECT l.beer FROM Likes l WHERE l.drinker="Mike")
    AND s2.beer IN (SELECT l.beer FROM Likes l WHERE l.drinker="Mike")
```

```
AND s3.beer IN (SELECT l.beer FROM Likes l WHERE l.drinker="Mike")  
AND s1.beer != s2.beer AND s2.beer != s3.beer AND s3.beer != s1.beer;
```

```
# bar
```

```
'Caravan'
```