

### 1. Drinkers who like only Bud

Query:

```
SELECT DISTINCT l1.drinker
FROM likes l1
WHERE l1.beer = 'Bud'
AND NOT EXISTS
(SELECT *
 FROM likes l2
  WHERE l1.drinker = l2.drinker AND l2.beer <> 'Bud')
```

Result:

Vince

### 2. Beers which every drinker who frequents Cabana likes == Beers such that there exists no drinker who frequents Cabana and don't like it

Query:

```
SELECT b.name
FROM beers b
WHERE NOT EXISTS
(SELECT *
 FROM frequents f
  WHERE f.bar = 'Cabana'
 AND NOT EXISTS
  (SELECT *
   FROM likes l
   WHERE f.drinker = l.drinker AND l.beer = b.name))
```

Result:

Bud

### 3. Bars which serve only beer(s) which Joe likes == Bars which don't serve beers which Joe doesn't like

Query:

```
SELECT b.name
FROM bars b
WHERE NOT EXISTS (
SELECT *
FROM sells s
WHERE s.bar = b.name
AND NOT EXISTS
(SELECT *
 FROM likes l
  WHERE l.drinker = 'Joe' AND l.beer = s.beer));
```

**Or**

```
SELECT B.name FROM BarBeerDrinker2.bars B
WHERE B.name NOT IN (
SELECT S.bar
From BarBeerDrinker2.sells S
WHERE S.beer NOT IN (
SELECT l.beer
From likes l
WHERE l.drinker = 'Joe'
));
```

Result:

A.P. Stump's  
Il Fornaio

**-- to remove bars which don't serve any beer**

```
SELECT distinct s.bar
From sells s
WHERE NOT EXISTS (
SELECT *
FROM sells s2
WHERE s2.bar = s.bar
AND NOT EXISTS
(SELECT *
FROM likes l
WHERE l.drinker = 'Joe' AND l.beer = s2.beer))
```

Result:

A.P. Stump's

#### **4. Bars which every drinker frequents**

Query:

```
SELECT b.name
FROM bars b
WHERE NOT EXISTS
(SELECT DISTINCT d.name
FROM drinkers d
WHERE NOT EXISTS
(SELECT *
FROM frequents f
WHERE f.drinker = d.name AND f.bar = b.name));
```

**Or**

```

SELECT t.bar
FROM
(SELECT f.bar, COUNT(*) AS cnt
FROM frequents f
GROUP BY f.bar) AS t
WHERE t.cnt = (SELECT COUNT(DISTINCT name) FROM drinkers);

```

Result:

Blue Angel

## 5. Drinkers who frequent exactly one bar of bar(s) which Joe frequents

Query:

```

SELECT DISTINCT f1.drinker
FROM frequents f1, frequents f2
WHERE f1.bar = f2.bar AND f1.drinker <> f2.drinker AND f2.drinker = 'Joe'
AND NOT EXISTS
(SELECT *
FROM frequents f3, frequents f4
WHERE f3.bar = f4.bar AND f4.drinker = 'Joe' AND f3.drinker = f1.drinker AND
f4.bar <> f2.bar);

```

**Or**

```

SELECT f.drinker
FROM frequents f
WHERE f.bar IN (SELECT f2.bar FROM frequents f2 WHERE f2.drinker = 'Joe')
GROUP BY f.drinker
HAVING COUNT(*) = 1;

```

Result:

Erik  
Herb  
Jesse  
Justin  
Mike  
Vince

## 6. Bars which no drinker frequents

Query:

```

SELECT b.name
FROM bars b
WHERE NOT EXISTS
(SELECT *
FROM frequents f

```

WHERE f.bar = b.name)

Result:

Blue Tattoo  
Britannia Arms  
Club 175  
Eulipia  
Giza Hookah Lounge  
Hedley Club  
Il Fornaio  
The B-Hive  
The Backbeat  
The Blank Club