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

select distinct d.name from Drinkers d join Likes I on d.name = I.drinker where d.phone LIKE '917-%' AND I.beer = 'Bud' OR 'Budweiser';



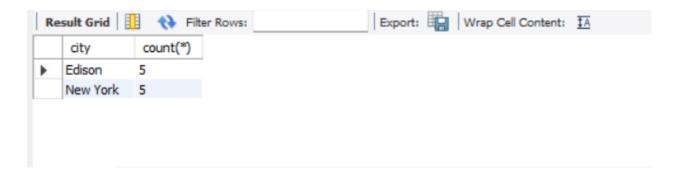
2. What beers does Mike like?

SELECT distinct beer FROM Likes Where drinker = 'Mike';



3. Which town has the most drinkers?

select d.city, count(*) from Drinkers d group by d.city having count(*) = (select count(*) from Drinkers d2 group by d2.city order by count(*) desc limit 1);



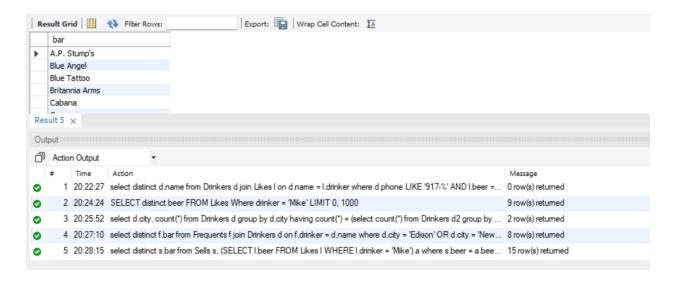
4. What bars are frequented by drinkers from that town (3)?

select distinct f.bar from Frequents f join Drinkers d on f.drinker = d.name where d.city = 'Edison' OR d.city = 'New York';



5. Provide all bars which serve beers that Mike likes

select distinct s.bar from Sells s, (SELECT I.beer FROM Likes I WHERE I.drinker = 'Mike') a where s.beer = a.beer;



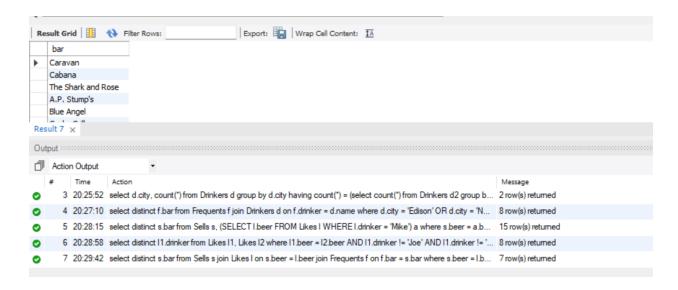
6. Who likes the at least one same beer that Joe or Mike like?

select distinct I1.drinker from Likes I1, Likes I2 where I1.beer = I2.beer AND I1.drinker != 'Joe' AND I1.drinker != 'Mike';



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

select distinct s.bar from Sells s join Likes I on s.beer = I.beer join Frequents f on f.bar = s.bar where s.beer = I.beer AND s.bar = f.bar AND I.drinker = f.drinker;



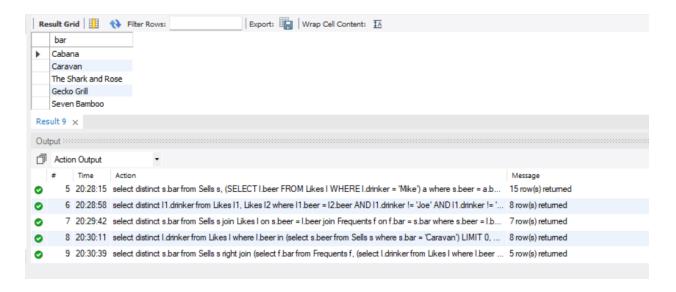
8. Drinkers who like some beers sold by Caravan bar

select distinct I.drinker from Likes I where I.beer in (select s.beer from Sells s where s.bar = 'Caravan');



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

select distinct s.bar from Sells s right join (select f.bar from Frequents f, (select l.drinker from Likes I where I.beer = 'Budweiser') a where f.drinker = a.drinker) b on s.bar = b.bar where s.beer = 'Budweiser';



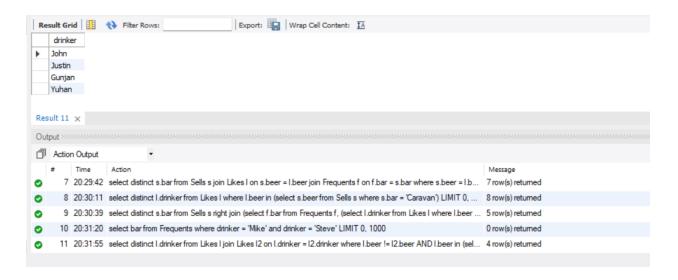
10. Bars which are frequented by Mike and Steve

select bar from Frequents where drinker = 'Mike' and drinker = 'Steve';



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

select distinct I.drinker from Likes I join Likes I2 on I.drinker = I2.drinker where I.beer != I2.beer AND I.beer in (select I3.beer from Likes I3 where I3.drinker = 'Mike') AND I2.beer in (select I4.beer from Likes I4 where I4.drinker = 'Mike') AND I.drinker != 'Mike';



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

select distinct s.bar from Sells s join Sells s2 on s.bar = s2.bar join Sells s3 on s.bar = s3.bar AND s2.bar = s3.bar where s.beer != s2.beer AND s.beer != s3.beer AND s2.beer != s3.beer AND s.beer in (select I.beer from Likes I where I.drinker = 'Mike') AND s2.beer in (select I2.beer from Likes I2 where I2.drinker = 'Mike') AND s3.beer in (select I3.beer from Likes I3 where I3.drinker = 'Mike');

