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CS 316 – HW 1

**Question 1 (15): Find names of drinkers that like ‘Amstel’. [Output format: a single**

**column named ‘drinker’**

select drinker from likes where beer='Amstel'

**Question 2 (20): Find names of drinkers that frequent bars that serve beers named**

**‘Amstel’. [Output format: a single column named ‘drinker’]**

select distinct F.drinker

from frequents F, serves S

where F.bar = S.bar AND S.beer = 'Amstel'

**Question 3 (20): ​Find pairs of different drinkers who go to the same bar. [Output format:**

**three columns named in the order as ‘drinker1’, ‘drinker2’, and ‘bar’. drinker1 should be the lexicographically smaller one. i.e. don't give results like (Ben, Amy, X) but (Amy, Ben, X) instead]**

select F1.drinker as drinker1, F2.drinker as drinker2, F1.bar

from frequents F1, frequents F2

where F1.bar = F2.bar AND F1.drinker < F2.drinker

**Question 4 (20):**

**​For drinkers who like to drink some beers that are more than 3 dollars, find the drinkers’ names, the drinkers’ addresses and the beers’ names (in that order). Sort the output by drinker names (in descending order) and for the same drinkers, the outputs should be sorted in ascending order of beers’ names. [Output format: three columns named as ‘name’, ‘address’, ‘beer’ in this order]**

select L.drinker as name, D.address, S.beer

from serves S, likes L, drinker D

where S.price > 3.00 and S.beer = L.beer and D.name = L.drinker

order by name desc, beer asc

**Question 5 (25):**

**​Find distinct drinkers who frequent some bars that do not serve at least one beer at the lowest price (among all the bars serving that beer). Remove duplicates. [Output format: a single column named ‘drinker’] (For each bar in your answer, there should be a beer served by the bar, which is served by a different bar at a lower price.)**

select distinct F.drinker

from serves S1, serves S2, frequents F

where S1.beer = S2.beer and S1.price > S2.price and S1.bar = F.bar

**Extra Credit (15):**

**Find distinct names and addresses of drinkers who like at least two beers. [Output format: two columns named in the order as ‘name’ and ‘address’]**

select distinct L1.drinker, D.address

from likes L1, likes L2, drinker D

where L1.drinker = L2.drinker and L1.beer != L2.beer and L1.drinker = D.name