

LAB 3: Ken Dizon

Dr. Bush, MSDS631 3/14/2023

Construct queries to solve the following problems.

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8  -- Q1: Find the first reservation (i.e., lowest rdate) for each sailor with sid less than 5.
9  SELECT sid, MIN(rdate) AS first_reservation
10 FROM Reserve
11 WHERE sid < 5
12 GROUP BY sid;
13
14 -- Q2: Find the number of reservations by 18-year-old sailors.
15 SELECT COUNT(*) AS num_reservations
16 FROM Reserve
17 WHERE sid IN (SELECT sid FROM Sailors WHERE age = 18);
18
19 -- Q3: Find all attributes/fields of boats that are "pumpkin" color
20 -- and have a ratingNeeded that is the maximum of all ratingNeeded for all boats.
21 SELECT *
22 FROM Boats
23 WHERE bcolor = 'pumpkin'
24 AND ratingNeeded = (SELECT MAX(ratingNeeded) FROM Boats);
25
26 -- Q4: Find the name, rating, ratingNeeded, and bid of all reservations by 18-year-old sailors
27 -- that have reserved a boat for which there rating is less than the rating needed.
28 -- Sort the results by sid.
29 SELECT s.name, s.rating, b.ratingNeeded, r.bid
30 FROM Sailors s
31 JOIN Reserve r ON s.sid = r.sid
32 JOIN Boats b ON r.bid = b.bid
33 WHERE s.age = 18 AND s.rating < b.ratingNeeded
34 ORDER BY s.sid;
35
36 -- Q5: Find average rating for each age group of sailors who are 31...39 years old,
37 -- but only include groups that have 30 or more sailors of that age.
38 SELECT age, AVG(rating) AS avg_rating
39 FROM Sailors
40 WHERE age BETWEEN 31 AND 39
41 GROUP BY age
42 HAVING COUNT(*) >= 30;
```

OUTPUTS

Q1			
sid	first_reservation		
1	2019-01-23		
2	2019-06-19		

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3	2019-09-02		
4	2019-03-06		
Q2			
num_reservations			
129			
Q3			
bid	name	ratingNeeded	bcolor
413	guppy413	10	pumpkin
755	guppy755	10	pumpkin
772	guppy772	10	pumpkin
864	guppy864	10	pumpkin
899	guppy899	10	pumpkin
964	guppy964	10	pumpkin
Q4			
name	rating	ratingNeeded	bid
Bob22	3	5	609
Bob59	5	7	1
Bob59	5	7	189
Bob59	5	7	422
Bob142	6	8	702
Bob142	6	9	862
Bob165	5	7	696
Bob165	5	10	767
Bob194	3	7	1
Bob194	3	9	488
Bob194	3	6	775
Bob433	5	6	104
Bob433	5	6	537
Bob433	5	10	666
Bob508	2	10	706
Bob537	5	9	698
Bob537	5	10	835

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Bob692	4	8	208
Bob692	4	5	623
Bob692	4	10	755
Bob800	2	9	9
Bob800	2	8	940
Bob845	8	10	317
Bob845	8	10	994
Bob866	1	10	23
Bob866	1	5	452
Bob866	1	8	644
Bob866	1	2	877
Bob866	1	7	954
Bob1017	7	8	26
Bob1017	7	8	109
Bob1017	7	9	304
Bob1025	7	9	497
Bob1025	7	10	772
Bob1025	7	10	800
Bob1164	4	9	878
Bob1207	7	10	216
Bob1207	7	9	520
Bob1207	7	9	740
Bob1416	7	8	58
Bob1452	2	7	559
Bob1452	2	4	567
Bob1452	2	3	797
Bob1452	2	5	844
Bob1587	8	10	409
Bob1587	8	10	507
Bob1726	7	10	772
Bob1835	5	9	
Q5			
age	avg_rating		
31	7.066666667		
37	7.235294118		
34	6.542857143		

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39	5.84375		
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