

Module 4, Part 11 Lecture

Slide 2 Question:

The current query returns the sid's and names of sailors who've reserved a red OR a green boat. This is done by executing two different queries and joining them (OR) with a union command. Therefore, if a given sailor has checked out a red boat (or boats) as well as a green boat (or boats), his or her name will not be returned in the final results with those who have just reserved a red boat (or boats).

Slide 3 Questions:

(a): There are duplicates in this result. There are exactly as many duplicates as there are reservations for a given sid which correspond to a red boat, from the group of reservations involving sailors who reserved at least one or more red boat and at least one or more green boat.

(b): A way to resolve these duplicates is to make the first SELECT statement a SELECT DISTINCT statement so as to remove the duplicate values for each corresponding red boat reservation.

Slide 5 Bonus Question:

It is possible that there are boats, which have been reserved within the reserves table, which are not listed on the boats table. In these cases, the first two queries will return the sailors who have reserved all the boats, so long as all the boats mentioned on the reserve table are also listed on the boats table only.

Slide 6 Question:

If the HAVING clause is added correctly, the output will be exactly the same. However, in order to replace the portion of the WHERE condition B.color = 'red', one must also include B.color in the GROUP BY statement already there. Thus, the final statement will be as follows:

```
SELECT B.bid, COUNT (*) AS scount
FROM Boats B, Reserve R
WHERE R.bid=B.bid
GROUP BY B.bid, B.color
HAVING B.color = 'red';
```

I, Justin Anthony Timberlake, declare that I have completed this assignment completely and entirely on my own, without any consultation with others. I understand that any breach of the UAB Academic Honor Code may result in severe penalties.