

9.3 Module Exercise: Sailors Activity

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Directions: Complete Sailors Examples 1–3 in the Group BY-Having-Order by Exs resource. Please complete this activity prior to the live session, if possible.

Sailors Example 1:

Total number of unique sailors who has reserved each boat (ordered in descending order), displaying the count, boat name and boat id?

```
SELECT COUNT(DISTINCT(sid)) AS sCount, bname, Reserves.bid
FROM Reserves
JOIN Boats ON Reserves.bid = Boats.bid
GROUP BY Reserves.bid
ORDER BY COUNT(DISTINCT(sid)) DESC
```

Sailors Example 2:

Average age of sailors who have reserved each boat (using bname), showing boat name, bid, and the average age. Order results by bid.

```
SELECT bname, Reserves.bid, AVG(Sailors.age) AS avg_age
FROM Reserves
JOIN Boats ON Reserves.bid = Boats.bid
JOIN Sailors ON Reserves.sid = Sailors.sid
GROUP BY Reserves.bid
ORDER BY Reserves.bid DESC
```

Sailors Example 3:

In addition, only show bnames where the average age of sailors who have reserved that boat is > 35 years old.

```
SELECT bname, Reserves.bid, AVG(Sailors.age) AS avg_age
FROM Reserves
JOIN Boats ON Reserves.bid = Boats.bid
JOIN Sailors ON Reserves.sid = Sailors.sid
GROUP BY Reserves.bid
HAVING AVG(Sailors.age) > 35
ORDER BY Reserves.bid DESC
```

OR ANOTHER WAY ...

```
SELECT bname, bid, avg_age
FROM
    (SELECT bname, Reserves.bid, AVG(Sailors.age) AS avg_age
    FROM Reserves
    JOIN Boats ON Reserves.bid = Boats.bid
    JOIN Sailors ON Reserves.sid = Sailors.sid
    GROUP BY Reserves.bid
    ORDER BY Reserves.bid DESC)
WHERE avg_age > 35
```