**Consider the DB schema:**

**Sailors**(sid,sname,rating,age)
**Boats**(bid,bname,color)
**Reserves**(sid,bid,day)

Where key attributes have been underlined.

- Find the average age of sailors with a rating of 10

  ```
  SELECT AVG(S.age)
  FROM Sailors S
  WHERE S.rating=10
  ```

- Count the number of different sailor names

```
SELECT COUNT(distinct S.sname)
FROM Sailors S
```

- For each red boat, find the number of reservations for this boat

```
SELECT B.bid, COUNT(*) as Reservecount
FROM Boats B, Reserves R
WHERE R.bid=B.bid AND B.color=’red’
GROUP BY B.bid
```

- Find the average and maximum age of sailors for each rating level that is associated with at least three sailors

```
SELECT S.rating, AVG(S.age) as AvgAge,
                 MAX(S.age) as MaxAge
FROM Sailors S
GROUP BY S.rating
HAVING COUNT(*)>=3
```

- Find the average age of sailors who are 18 or older for each rating level that is associated with at least three such sailors

```
SELECT S.rating, AVG(S.age) as AvgAge
FROM Sailors S
WHERE S.age>17
GROUP BY S.rating
HAVING COUNT(*)>=3
```

- For each boat name, find the number of different sailors that reserved a boat with such a name

```
SELECT bname, COUNT(distinct sid)
FROM Boats, Reserves
WHERE Boats.bid=Reserves.bid
GROUP BY bname
```

- For each boat, find the number of different sailors that reserved it on 15/02/01

```
SELECT bid, COUNT(sid)
FROM Reserves
WHERE date=’15/02/01’
GROUP BY bid
```

- For each boat, find its name and the number of different sailors that reserved it on 15/02/01

```
SELECT Boats.bid, bname, COUNT(sid)
FROM Boats, Reserves
WHERE Boats.bid=Reserves.bid AND date=’15/02/01’
GROUP BY Boats.bid, bname
```

- Find the name and age of the oldest sailor.

**INCORRECT query:**

```
SELECT S.sname,MAX(S.age)
FROM Sailors S
```

**CORRECT QUERY:**

```
SELECT S.sname,S.age
FROM Sailors S
WHERE S.age=(SELECT MAX(S1.age)
                FROM Sailors S1)
```