Lab Exercise 12

Consider the database of a sailing club with the following three tables:

Sailor(id: integer, name: string, rating: integer, age: integer)

Boat(id: integer, name: string, colour: string)

Reservation(sid: integer, bid: integer, day: date)

A script sailors.sql, which creates a small sailors database, can be found as the attachment on LMS.

For each of the following queries in English, write two SQL queries that are equivalent, but essentially different:

1. Select, for each boat, the sailor who made the highest number of reservations for that boat.

2. List, for every boat, the number of times it has been reserved, including those boats that have never been reserved (list the id and the name).

3. List those sailors who have reserved every red boat (list the id and the name).

4. List those sailors who have reserved only red boats.

5. For which boat are there the most reservations?

6. Select all sailors who have never reserved a red boat.

For each sailor, who has at least ten reservations for red boats, increase the rating by 1.

8. Create a table

LastReservation(sid: integer, bid: integer, day: date, sname: string, bname: string)

that contains for every sailor the most recent date when the sailor has made a reservation and the boat he/she has reserved. As a prefix for the table name use your surname.

• Write an insert statement that fills the table with the information that can be inferred from the current state of the database.

9. Find the sailors who have made, for each boat colour, at least one reservation for a boat with that colour.