

Queries

Database I

Database schema

sailor(sid, sname, rating, age)

boat(bid, bname, color)

reserve(sid(sailor), bid(boat), day)

Database instance

boat

bid	bname	color
101	Interlake	blue
102	Interlake	red
103	Clipper	green
104	Marine	red

reserve

sid	bid	day
22	101	1998-10-10
22	102	1998-10-10
22	103	1998-10-08
22	104	1998-10-07
31	102	1998-11-10
31	103	1998-11-06
31	104	1998-11-12
64	101	1998-09-05
64	102	1998-09-08
74	103	1998-09-08

sailor

sid	sname	rating	age
22	Dustin	7	45
29	Brutus	1	33
31	Lubber	8	55.5
32	Andy	8	25.5
58	Rusty	10	35
64	Horatio	7	35
71	Zorba	10	16
74	Horatio	9	35
85	Art	3	25.5
95	Bob	3	63.5

Queries - Warm up

Q1: encontre os velejadores que já reservaram o barco número 103

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```
select s.* from sailor s natural join reserve r  
       where r.bid=103;
```

Q1a: e quem nunca reservou o barco 103?

Queries - Warm up

Q1: encontre os velejadores que já reservaram o barco número 103

```
select s.* from sailor s natural join reserve r
      where r.bid=103;
```

Q1a: e quem nunca reservou o barco 103?

```
select s.* from sailor s natural join reserve r
      where r.bid!=103; -- Funciona?
```

Queries - Warm up

Q2: Find the names of sailors who have reserved a red boat
(encontre os nomes dos velejadores que reservaram um barco vermelho)

Q3: Find the colors of boats reserved by Lubber
(encontre as cores dos barcos reservados pelo Lubber)

Q4: Find the names of sailors who have reserved at least one boat
(encontre os nomes dos velejadores que reservaram pelo menos um barco)

Q5: Find the names of sailors who have reserved a red or a green boat
(encontre os nomes dos velejadores que reservaram um barco vermelho ou um barco verde)

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Q6: Find the names of sailors who have reserved both a red and a green boat
(encontre os nomes dos velejadores que tenham reservados barcos vermelhos e barcos verdes)

Queries

Q6: Find the names of sailors who have reserved both a red and a green boat
(encontre os nomes dos velejadores que tenham reservados barcos vermelhos e barcos verdes)

Q6a: Find the names of sailors who have reserved a red but not a green boat

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Q7: (HOT) Find the names of sailors who have reserved at least two different boats
(encontre os nomes dos velejadores que tenham reservado pelo menos dois barcos diferentes)

Queries

Q8: (HOT) Find the names of sailors who have reserved all boats
(encontre os nomes dos velejadores que reservaram todos os barcos)

Queries

Q9: (HOT) Compute increments for the ratings of persons who have sailed two different boats on the same day

(calcule o incremento dos rating dos velejadores que velejaram dois barcos diferentes no mesmo dia)

Queries

Q10: Find the oldest sailor's name
(Encontre o velejador mais velho)

Q11: Find the youngest sailor's name
(Encontre o velejador mais velho)

Queries

Q12: Count the number of boats by color
(conte o número de barcos por cor)