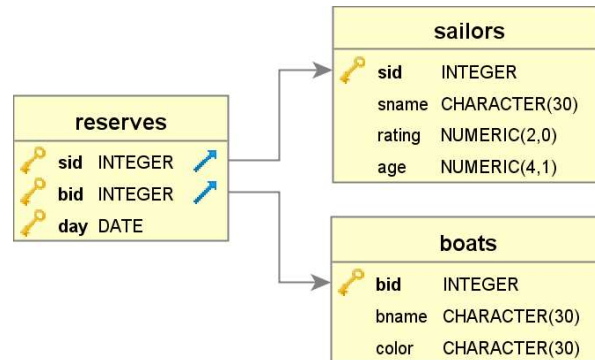


Module 4. Advanced SQL



sailors				boats			reserves		
sid	sname	rating	age	bid	bname	color	sid	bid	day
22	Dustin	7	45.0	101	Interlake	blue	22	101	1998-10-10
29	Brutus	1	33.0	102	Interlake	red	22	102	1998-10-10
31	Lubber	8	55.5	103	Clipper	green	22	103	1998-10-08
32	Andy	8	25.5	104	Marine	red	22	104	1998-10-07
58	Rusty	10	35.0				31	102	1998-11-10
64	Horatio	7	35.0				31	103	1998-11-06
71	Zorba	10	16.0				31	104	1998-11-12
74	Horatio	9	35.0				64	101	1998-09-05
85	Art	3	25.5				64	102	1998-09-08
95	Bob	3	63.5				74	103	1998-09-08

- Find the **names** and ages of all sailors.
- Find the **names** of sailors with a rating above 9.
- Find the **names** of sailors who have reserved boat number 104.
- Find the **sids** of sailors who have reserved a blue boat.
- Find the **colors** of boats reserved by Lubber.
- Find all **sids** of sailors who have a rating of 10 or reserved boat 104.
- Find the **names** of sailors who have reserved at least one boat.
- Find the **names** of sailors who have reserved at least two different boats.
- Find the **names** of sailors who have never reserved a boat.
- Find the **names** of sailors who have sailed two different boats on the same day.
- Find the **names** of sailors who reserved at least one boat and have not reserved a red boat.
- Find the **names** of sailors who have not reserved a red boat.
- Find the **names** of sailors who have reserved a red or a green boat.

- 14) Find the **names** of sailors who have reserved both a red and a green boat.
- 15) Find the **sids** of all sailors who have reserved red boats but not green boats.
- 16) Find the **names** of sailors who have reserved all boats.
- 17) Find the **names** of sailors who have reserved all red boats.
- 18) Find the **bids** of boats that have been reserved by all sailors whose rating is 7.
- 19) Find the **sids** of sailors whose rating is better than some sailor called Horatio.
- 20) Find the **sids** of sailors with the highest rating.
- 21) Find the **sids** of sailors with the second-highest rating.
- 22) Count the **number** of sailors.
- 23) Count the **number** of different names.
- 24) Find the **average age** of all sailors.
- 25) Find the **average age** of sailors with a rating of 10.
- 26) Find the **name** and **age** of the oldest sailor.
- 27) Find the **average ages** of sailors for each rating level.
- 28) Find the **age** of the youngest sailor for each rating level.
- 29) Find the **names** of sailors who are older than the oldest sailor with a rating of 10.
- 30) Consider a set of sailors who is at least 18 years old. Find the **minimum age** of the sailor **for each rating level with at least two sailors**.
- 31) Consider a set of sailors whose rating level has at least two sailors. Find **the minimum age of the sailor** who is at least 18 years old for each rating level.
- 32) Find **the number of reservations** for each red boat.
- 33) Consider the groups of sailors by the rating. We can compute the average age of each group. Find **the minimum average ages** among groups.
- 34) Find the **number** of different boats reserved by each sailor.