Tables used in this note: **Sailors Reserves Boats**

Sailors(sid: integer, sname: string, rating: integer, age: real);

Boat(bid: integer, bname: string, bcolor: string);

Reserves(sid: integer, bid: integer, day: date).

**Create the Tables:**

1. CREATE TABLE sailor ( sid integer not null,

sname varchar(32),

rating integer,

age real,

CONSTRAINT PK\_sailors PRIMARY KEY (sid) );

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 40

85 Art 3 25.5

95 Bob 3 63.5

2. CREATE TABLE reserves ( sid integer not null,

bid integer not null,

day datetime not null,

CONSTRAINT PK\_reserves PRIMARY KEY (sid, bid, day),

FOREIGN KEY (sid) REFERENCES sailors(sid),

FOREIGN KEY (bid) REFERENCES boats(bid) );

sid bid day

22 101 1998-10-10

22 102 1998-10-10

22 103 1998-10-8

22 104 1998-10-7

31 102 1998-11-10

31 103 1998-11-6

31 104 1998-11-12

64 101 1998-9-5

64 102 1998-9-8

74 103 1998-9-8

3. CREATE TABLE Boat ( Bid integer not null,

bname varchar(32),

bcolor varchar(32),

CONSTRAINT PK\_Boat PRIMARY KEY (bid) );

bid bname bcolor

101 Interlake blue

102 Interlake red

103 Clipper green

104 Marine red

1. Find all information of sailors who have reserved boat number 101.

2. Find names of sailors who have reserved boat number 101.

3. Find sid of sailors who have reserved red color boat.

4. Find names of sailors who have reserved red color boat.

5. Find names of sailors who have reserved red or green color boat.

6. Find names of sailors who have reserved red and green color boat.

7. Find colors of boat reserved by lubber.

8. Find names of sailors who have reserved red but not green color boat.

9. Find the names of sailors who have reserved at least one boat

10. Find the ids and names of sailors who have reserved two different boats on the same day

11. Find the names of sailors who have reserved at least two boats.

12. Find the names of sailors whose rating is better than some sailor called Horatio.

13. Find the names of sailors whose rating is better than every sailor called Horatio.

14. Find the name and the age of the youngest sailor.

15. Find the average age of sailors for each rating level.

16. Find the average age of sailors for each rating level that has at least two sailors.

17. Find the sailor id’s of sailors with the highest rating.

18. Find the names of sailors who have reserved all boats whose name starts with “D”