**Institute of Engineering & Management**

**Department of Computer Science & Engineering**

**Data-Base Management System Lab for 3rd year 6th semester 2019**

**Code: CS 691**

**Date:** 07/03/19

**WEEK-4**

**Problem Statement-1:** Find the names of sailors who have reserved boat 103.

**SQL :**

SQL> select sname from sailors

2 where sid in

3 ( select sid from reserves where bid=103);

SNAME

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Dustin

Lubber

Horatio

**Problem Statement-2:** Find the names of sailors who have reserved a red boat

**SQL :**

SQL> select sname from sailors

2 where sid in

3 ( select sid from reserves where bid in

4 ( select bid from boats where color='red'));

SNAME

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Dustin

Lubber

Horatio

**Problem Statement-3:** Find the colours of boats reserved by Lubber

**SQL :**

SQL> select bname, color from boats

2 where bid in

3 ( select bid from reserves where sid in

4 ( select sid from Sailors where sname='Lubber'));

BNAME COLOR

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Interlake red

Clipper green

Marine red

**Problem Statement-4:** Find the names of sailors who have reserved at least one boat

**SQL :**

SQL> select sid, sname from sailors

2 where sid in ( select sid from reserves );

SID SNAME

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22 Dustin

31 Lubber

64 Horatio

74 Horatio

**Problem Statement-5:** How many sailors are there within the range of 40-60 who have reserved a red boat?

**SQL :**

SQL> select count(\*) from sailors

2 where age>39 and age<61 and sid in

3 ( select sid from reserves where bid in

4 ( select bid from boats where color='red' ));

COUNT(\*)

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2

**Problem Statement-6:** Find the names of sailors who have reserved a red or a green boat

**SQL :**

SQL> select sid, sname from sailors

2 where sid in

3 ( select sid from reserves where bid in

4 ( select bid from boats where color in ('red', 'green')));

SID SNAME

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22 Dustin

31 Lubber

64 Horatio

74 Horatio

**Problem Statement-7:** Find the name of sailors who have reserved a red and a green boat

**SQL :**

SQL> select sid, sname from sailors

2 where sid in

3 ( select sid from reserves where bid in

4 ( select bid from boats where color='red'))

5 and sid in

6 ( select sid from reserves where bid in

7 ( select bid from boats where color='green'));

SID SNAME

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22 Dustin

31 Lubber

**Problem Statement-8:** Find the name of sailors who have reserved at least two boats

**SQL :**

SQL> select sid, sname from sailors

2 where sid in

3 ( select sid from reserves group by sid having count(sid)>1);

SID SNAME

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22 Dustin

31 Lubber

64 Horatio

**Problem Statement-9:** On which date, boat 102 was reserved by Dustin?

**SQL :**

SQL> select day from reserves

2 where bid=102 and sid in

3 ( select sid from sailors where sname='Dustin' );

DAY

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10-OCT-98

**Problem Statement-10:** How many sailors are there who have same rating?

**SQL :**

SQL> select sum(count(\*)) from sailors

2 group by rating

3 having count(\*)>1;

SUM(COUNT(\*))

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7

**Problem Statement-11:** Find the sids of sailors with age over 20 who have not reserved a red boat

**SQL :**

SQL> select sid from sailors

2 where age>20 and sid not in

3 (select distinct sid from reserves where bid in

4 (select bid from boats where color='red'));

SID

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29

32

58

74

85

95

6 rows selected.

**Problem Statement-12:** How many months later Marine was booked from his first booking?

**SQL :**

SQL> select distinct months\_between

2 ((select day from reserves where bid in

3 (select bid from boats where bname='Marine') and day not in

4 (select min(day) from reserves group by bid having bid in

5 (select bid from boats where bname='Marine'))),

6 (select min(day) from reserves group by bid having bid in

7 (select bid from boats where bname='Marine'))) as mon\_gap

8 from reserves;

MON\_GAP

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5.03225806

**Problem Statement-13:** Find the names of sailors who have reserved all boats

**SQL :**

SQL> select sname from sailors where sid in

2 (select sid from reserves group by sid

3 having count(distinct bid)=(select count(\*) from boats));

SNAME

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Dustin

**Problem Statement-14:** Find the names of sailors who have reserved all boats call Interlake

**SQL :**

SQL> select sname from sailors where sid in

2 (select sid from reserves where bid in

3 (select bid from boats where bname='Interlake')

4 group by sid having count(distinct bid)=(select count(\*)

5 from boats where bname='Interlake'));

SNAME

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Dustin

Horatio