SQL> desc sailor

Name Null? Type

----------------------------------------- -------- ----------------------------

SID NOT NULL NUMBER(38)

SNAME NOT NULL VARCHAR2(30)

RATING NUMBER(38)

AGE FLOAT(126)

SQL> select \* from 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

10 rows selected.

SQL> COLUMN SID FOR 999

SQL> COLUMN BID FOR 9999

SQL> COLUMN RDAY FOR A10

SQL> COLUMN RATING FOR 999999

SQL> COLUMN SNAME FOR A12

SQL> COLUMN BNAME FOR A12

SQL> COLUMN COLOR FOR A8

SQL> COLUMN AGE FOR 99.9

SQL> SET FEEDBACK 1

SQL> SET PAGESIZE 30

SQL> select \* from sailor;

SID SNAME RATING AGE

---- ------------ ------- -----

22 DUSTIN 7 45.0

29 BRUTUS 1 33.0

31 LUBBER 8 55.5

32 ANDY 8 25.5

58 RUSTY 10 35.0

64 HORATIO 7 35.0

71 ZORBA 10 16.0

74 HORATIO 9 35.0

85 ART 3 25.5

95 BOB 3 63.5

10 rows selected.

SQL> desc boat;

Name Null? Type

----------------------------------------- -------- ----------------------------

BID NOT NULL NUMBER(38)

BNAME VARCHAR2(30)

COLOR VARCHAR2(10)

SQL> select \* from boat;

BID BNAME COLOR

----- ------------ --------

101 INTERLAKE BLUE

102 INTERLAKE RED

103 CLIPPER GREEN

104 MARINE RED

4 rows selected.

SQL> desc reserve;

Name Null? Type

----------------------------------------- -------- ----------------------------

SID NOT NULL NUMBER(2)

BID NOT NULL NUMBER(3)

RDAY NOT NULL DATE

SQL> select \* from reserve;

SID BID RDAY

---- ----- ----------

22 101 10-OCT-98

22 102 10-OCT-98

22 103 08-OCT-98

22 104 07-OCT-98

31 102 10-NOV-98

31 103 06-NOV-98

31 104 12-NOV-98

64 101 05-SEP-98

64 102 08-SEP-98

74 103 08-SEP-98

10 rows selected.

SQL> select sailor.SID, sailor.SNAME, sailor.RATING, sailor.AGE, reserve.SID, reserve.BID, reserve.RDAY

2 FROM sailor

3 INNER JOIN RESERVE

4 ON sailor.SID=RESERVE.SID;

SID SNAME RATING AGE SID BID RDAY

---- ------------ ------- ----- ---- ----- ----------

22 DUSTIN 7 45.0 22 101 10-OCT-98

22 DUSTIN 7 45.0 22 102 10-OCT-98

22 DUSTIN 7 45.0 22 103 08-OCT-98

22 DUSTIN 7 45.0 22 104 07-OCT-98

31 LUBBER 8 55.5 31 102 10-NOV-98

31 LUBBER 8 55.5 31 103 06-NOV-98

31 LUBBER 8 55.5 31 104 12-NOV-98

64 HORATIO 7 35.0 64 101 05-SEP-98

64 HORATIO 7 35.0 64 102 08-SEP-98

74 HORATIO 9 35.0 74 103 08-SEP-98

10 rows selected.

SQL> select sailor.SID, sailor.SNAME, reserve.BID, reserve.RDAY

2 FROM sailor

3 INNER JOIN RESERVE

4 ON sailor.SID=RESERVE.SID;

SID SNAME BID RDAY

---- ------------ ----- ----------

22 DUSTIN 101 10-OCT-98

22 DUSTIN 102 10-OCT-98

22 DUSTIN 103 08-OCT-98

22 DUSTIN 104 07-OCT-98

31 LUBBER 102 10-NOV-98

31 LUBBER 103 06-NOV-98

31 LUBBER 104 12-NOV-98

64 HORATIO 101 05-SEP-98

64 HORATIO 102 08-SEP-98

74 HORATIO 103 08-SEP-98

10 rows selected.

SQL> CREATE VIEW SAILOR1 AS (SELECT \* FROM SAILOR WHERE SID IN (22,29,31,32,58,95));

View created.

SQL> CREATE VIEW SAILOR1 AS (SELECT \* FROM SAILOR WHERE SID IN (31,32,64,71,74));

CREATE VIEW SAILOR1 AS (SELECT \* FROM SAILOR WHERE SID IN (31,32,64,71,74))

\*

ERROR at line 1:

ORA-00955: name is already used by an existing object

SQL> CREATE VIEW SAILOR2 AS (SELECT \* FROM SAILOR WHERE SID IN (31,32,64,71,74));

View created.

SQL> CREATE VIEW SAILOR3 AS (SELECT \* FROM SAILOR WHERE SID IN (22,32,85,74));

View created.

SQL> CREATE VIEW RESERVE1 AS (SELECT \* FROM RESERVE WHERE SID IN (22,64));

View created.

SQL> CREATE VIEW RESERVE2 AS (SELECT \* FROM RESERVE WHERE SID IN (31,74));

View created.

SQL> select \* from SAILOR1

2 ;

SID SNAME RATING AGE

---- ------------ ------- -----

22 DUSTIN 7 45.0

29 BRUTUS 1 33.0

31 LUBBER 8 55.5

32 ANDY 8 25.5

58 RUSTY 10 35.0

95 BOB 3 63.5

6 rows selected.

SQL> select \* from SAILOR2;

SID SNAME RATING AGE

---- ------------ ------- -----

31 LUBBER 8 55.5

32 ANDY 8 25.5

64 HORATIO 7 35.0

71 ZORBA 10 16.0

74 HORATIO 9 35.0

5 rows selected.

SQL> select \* from SAILOR3;

SID SNAME RATING AGE

---- ------------ ------- -----

22 DUSTIN 7 45.0

32 ANDY 8 25.5

74 HORATIO 9 35.0

85 ART 3 25.5

4 rows selected.

SQL> select \* from RESERVE1;

SID BID RDAY

---- ----- ----------

22 101 10-OCT-98

22 102 10-OCT-98

22 103 08-OCT-98

22 104 07-OCT-98

64 101 05-SEP-98

64 102 08-SEP-98

6 rows selected.

SQL> select \* from RESERVE2;

SID BID RDAY

---- ----- ----------

31 102 10-NOV-98

31 103 06-NOV-98

31 104 12-NOV-98

74 103 08-SEP-98

4 rows selected.

SQL> select sailor.SID, sailor.SNAME, sailor.RATING, sailor.AGE, reserve.SID, reserve.BID, reserve.RDAY

2 FROM sailor

3 INNER JOIN RESERVE

4 ON sailor.SID=RESERVE.SID;

SID SNAME RATING AGE SID BID RDAY

---- ------------ ------- ----- ---- ----- ----------

22 DUSTIN 7 45.0 22 101 10-OCT-98

22 DUSTIN 7 45.0 22 102 10-OCT-98

22 DUSTIN 7 45.0 22 103 08-OCT-98

22 DUSTIN 7 45.0 22 104 07-OCT-98

31 LUBBER 8 55.5 31 102 10-NOV-98

31 LUBBER 8 55.5 31 103 06-NOV-98

31 LUBBER 8 55.5 31 104 12-NOV-98

64 HORATIO 7 35.0 64 101 05-SEP-98

64 HORATIO 7 35.0 64 102 08-SEP-98

74 HORATIO 9 35.0 74 103 08-SEP-98

10 rows selected.

SQL> select sailor.SID, sailor.SNAME, reserve.BID, reserve.RDAY

2 FROM sailor

3 INNER JOIN RESERVE

4 ON sailor.SID=RESERVE.SID;

SID SNAME BID RDAY

---- ------------ ----- ----------

22 DUSTIN 101 10-OCT-98

22 DUSTIN 102 10-OCT-98

22 DUSTIN 103 08-OCT-98

22 DUSTIN 104 07-OCT-98

31 LUBBER 102 10-NOV-98

31 LUBBER 103 06-NOV-98

31 LUBBER 104 12-NOV-98

64 HORATIO 101 05-SEP-98

64 HORATIO 102 08-SEP-98

74 HORATIO 103 08-SEP-98

10 rows selected.

SQL> select sailor.SID, sailor.SNAME, reserve.BID, reserve.RDAY

2 FROM SAILOR JOIN RSERVE

3 ON SAILOR.SID=

4 ;

\*

ERROR at line 4:

ORA-00936: missing expression

SQL> select sailor.SID, sailor.SNAME, reserve.BID, reserve.RDAY

2 FROM SAILOR JOIN RESERVE

3 ON SAILOR.SID=RESERVE.SID

4 WHERE RESERVE.RDAY LIKE ('%NOV%') AND RESERVE.SID=74;

no rows selected

SQL> SELECT \* FROM SAILOR NATURAL JOIN RESERVE NATURAL JOIN BOAT

2 WHERE RESERVE.RDAY LIKE ('%AUG%') RESERVE ;

WHERE RESERVE.RDAY LIKE ('%AUG%') RESERVE

\*

ERROR at line 2:

ORA-00933: SQL command not properly ended

SQL> SELECT \* FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT

4 ON RESERVE.SID=BOAT.BID

5 WHERE RESERVE.RDAY LIKE ('%OCT%') AND BOAT.BID<>101;

no rows selected

SQL> SELECT \* FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT

4 ON RESERVE.SID=BOAT.BID

5 WHERE RESERVE.RDAY LIKE ('%OCT%') AND BOAT.BID<>101;

no rows selected

SQL> SELECT \* FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT

4 ON RESERVE.BID=BOAT.BID

5 WHERE RESERVE.RDAY LIKE ('%OCT%') AND BOAT.BID<>101;

SID SNAME RATING AGE SID BID RDAY BID BNAME

---- ------------ ------- ----- ---- ----- ---------- ----- ------------

COLOR

--------

22 DUSTIN 7 45.0 22 102 10-OCT-98 102 INTERLAKE

RED

22 DUSTIN 7 45.0 22 103 08-OCT-98 103 CLIPPER

GREEN

22 DUSTIN 7 45.0 22 104 07-OCT-98 104 MARINE

RED

3 rows selected.

SQL> SELECT SAILOR1 LEFT OUTER JOIN SAILOR2

2 OM SAILOR1.SID=SAILOR2.SID

3 OM SAILOR1.SID=SAILOR2.SID;

SELECT SAILOR1 LEFT OUTER JOIN SAILOR2

\*

ERROR at line 1:

ORA-00923: FROM keyword not found where expected

SQL>

SQL> SELECT SAILOR1 LEFT OUTER JOIN SAILOR2

2 ON SAILOR1.SID=SAILOR2.SID

3 ORDER BY SAILOR1.SID, SAILOR2.SID;

SELECT SAILOR1 LEFT OUTER JOIN SAILOR2

\*

ERROR at line 1:

ORA-00923: FROM keyword not found where expected

SQL> SELECT \* FROM SAILOR1 LEFT OUTER JOIN SAILOR2

2 ON SAILOR1.SID=SAILOR2.SID

3 ORDER BY SAILOR1.SID, SAILOR2.SID;

SID SNAME RATING AGE SID SNAME RATING AGE

---- ------------ ------- ----- ---- ------------ ------- -----

22 DUSTIN 7 45.0

29 BRUTUS 1 33.0

31 LUBBER 8 55.5 31 LUBBER 8 55.5

32 ANDY 8 25.5 32 ANDY 8 25.5

58 RUSTY 10 35.0

95 BOB 3 63.5

6 rows selected.

SQL> SELECT \* FROM SAILOR1 RIGHT OUTER JOIN SAILOR2

2 ON SAILOR1.SID=SAILOR2.SID

3 ORDER BY SAILOR1.SID, SAILOR2.SID;

SID SNAME RATING AGE SID SNAME RATING AGE

---- ------------ ------- ----- ---- ------------ ------- -----

31 LUBBER 8 55.5 31 LUBBER 8 55.5

32 ANDY 8 25.5 32 ANDY 8 25.5

64 HORATIO 7 35.0

71 ZORBA 10 16.0

74 HORATIO 9 35.0

5 rows selected.

SQL> SELECT \* FROM SAILOR1 FULL OUTER JOIN SAILOR2

2 ON SAILOR1.SID=SAILOR2.SID

3 ORDER BY SAILOR1.SID, SAILOR2.SID;

SID SNAME RATING AGE SID SNAME RATING AGE

---- ------------ ------- ----- ---- ------------ ------- -----

22 DUSTIN 7 45.0

29 BRUTUS 1 33.0

31 LUBBER 8 55.5 31 LUBBER 8 55.5

32 ANDY 8 25.5 32 ANDY 8 25.5

58 RUSTY 10 35.0

95 BOB 3 63.5

64 HORATIO 7 35.0

71 ZORBA 10 16.0

74 HORATIO 9 35.0

9 rows selected.

SQL> SELECT \* FROM SAILOR NATUAL JOIN RESERVE;

SELECT \* FROM SAILOR NATUAL JOIN RESERVE

\*

ERROR at line 1:

ORA-00905: missing keyword

SQL> SELECT \* FROM SAILOR NATURAL JOIN RESERVE;

SID SNAME RATING AGE BID RDAY

---- ------------ ------- ----- ----- ----------

22 DUSTIN 7 45.0 101 10-OCT-98

22 DUSTIN 7 45.0 102 10-OCT-98

22 DUSTIN 7 45.0 103 08-OCT-98

22 DUSTIN 7 45.0 104 07-OCT-98

31 LUBBER 8 55.5 102 10-NOV-98

31 LUBBER 8 55.5 103 06-NOV-98

31 LUBBER 8 55.5 104 12-NOV-98

64 HORATIO 7 35.0 101 05-SEP-98

64 HORATIO 7 35.0 102 08-SEP-98

74 HORATIO 9 35.0 103 08-SEP-98

10 rows selected.

SQL> SELECT \* FROM SAILOR3 CROSS JOIN RESERVE2;

SID SNAME RATING AGE SID BID RDAY

---- ------------ ------- ----- ---- ----- ----------

22 DUSTIN 7 45.0 31 102 10-NOV-98

32 ANDY 8 25.5 31 102 10-NOV-98

74 HORATIO 9 35.0 31 102 10-NOV-98

85 ART 3 25.5 31 102 10-NOV-98

22 DUSTIN 7 45.0 31 103 06-NOV-98

32 ANDY 8 25.5 31 103 06-NOV-98

74 HORATIO 9 35.0 31 103 06-NOV-98

85 ART 3 25.5 31 103 06-NOV-98

22 DUSTIN 7 45.0 31 104 12-NOV-98

32 ANDY 8 25.5 31 104 12-NOV-98

74 HORATIO 9 35.0 31 104 12-NOV-98

85 ART 3 25.5 31 104 12-NOV-98

22 DUSTIN 7 45.0 74 103 08-SEP-98

32 ANDY 8 25.5 74 103 08-SEP-98

74 HORATIO 9 35.0 74 103 08-SEP-98

85 ART 3 25.5 74 103 08-SEP-98

16 rows selected.

SQL> SELECT \* FROM SAILOR.SNAME FROM SAILOR NATURAL JOIN RESERVE WHERE RESERVE.BID=103;

SELECT \* FROM SAILOR.SNAME FROM SAILOR NATURAL JOIN RESERVE WHERE RESERVE.BID=103

\*

ERROR at line 1:

ORA-00933: SQL command not properly ended

SQL> SELECT SAILOR.SNAME FROM SAILOR NATURAL JOIN RESERVE WHERE RESERVE.BID=103;

SNAME

------------

DUSTIN

LUBBER

HORATIO

3 rows selected.

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT

4 ON BOAT.BID=RESERVE.BID

5 WHERE BOAT.COLOR='RED';

SNAME

------------

DUSTIN

LUBBER

HORATIO

DUSTIN

LUBBER

5 rows selected.

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT

4 ON BOAT.BID=RESERVE.BID

5 WHERE SAILOR.SNAME='Lubber';

no rows selected

SQL> SELECT BOAT.COLOR FROM BOAT JOIN RESERVE

2 ON BOAT.BID=RESERVE.BID

3 JOIN SAILOR

4 ON SAILOR.SID=RESERVE.SID

5 WHERE SAILOR.SNAME='Lubber';

no rows selected

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT

4 ON BOAT.BID=RESERVE.BID

5 ;

SNAME

------------

DUSTIN

DUSTIN

DUSTIN

DUSTIN

LUBBER

LUBBER

LUBBER

HORATIO

HORATIO

HORATIO

10 rows selected.

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON BOAT.BID=RESERVE.BID

3 JOIN SAILOR;

JOIN SAILOR

\*

ERROR at line 3:

ORA-00905: missing keyword

SQL> SELECT BOAT.COLOR FROM BOAT JOIN RESERVE

2 ON BOAT.BID=RESERVE.BID

3 JOIN SAILOR

4 ON SAILOR.SID=RESERVE.SID

5 WHERE SAILOR.SNAME='LUBBER';

COLOR

--------

RED

GREEN

RED

3 rows selected.

SQL> SELECT BOAT.COLOR FROM BOAT JOIN RESERVE

2 ON BOAT.BID=RESERVE.BID

3 JOIN SAILOR

4 ON SAILOR.SID=RESERVE.SID

5 WHERE SAILOR.SNAME='DUSTIN';

COLOR

--------

BLUE

RED

GREEN

RED

4 rows selected.

SQL> SELECT SAILOR.SNAME FROM SAILOR NATURAL JOIN RESERVE

2 WHERE SAILOR.SID IN (SELECT \* FROM RESERVE.SID);

WHERE SAILOR.SID IN (SELECT \* FROM RESERVE.SID)

\*

ERROR at line 2:

ORA-25155: column used in NATURAL join cannot have qualifier

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 WHERE SAILOR.SID IN (SELECT RESERVE.SID FROM RESERVE);

SNAME

------------

DUSTIN

DUSTIN

DUSTIN

DUSTIN

LUBBER

LUBBER

LUBBER

HORATIO

HORATIO

HORATIO

10 rows selected.

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT;

JOIN BOAT

\*

ERROR at line 3:

ORA-00905: missing keyword

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT;

JOIN BOAT

\*

ERROR at line 3:

ORA-00905: missing keyword

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT

4 ON BOAT.BID=RESERVE.BID

5 WHERE BOAT.COLOR='RED' OR BOAT.COLOR='GREEN';

SNAME

------------

DUSTIN

LUBBER

HORATIO

DUSTIN

LUBBER

HORATIO

DUSTIN

LUBBER

8 rows selected.

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT

4 ON BOAT.BID=RESERVE.BID

5 WHERE BOAT.COLOR='RED' AND BOAT.COLOR='GREEN';

no rows selected

SQL> SELECT SAILOR.SID FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 WHERE SAILOR.RATING>=8 OR RESERVE.BID=103;

SID

----

22

31

31

31

74

5 rows selected.

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN BOAT

2 ;

\*

ERROR at line 2:

ORA-00905: missing keyword

SQL> SELECT SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT

4 ON BOAT.BID=RESERVE.BID

5 WHERE BOAT.BNAME LIKE ('%U%')

6 ORDER BY SAILOR.SNAME;

no rows selected

SQL> SELECT SAILOR.SID, SAILOR.SNAME FROM SAILOR JOIN RESERVE

2 ON SAILOR.SID=RESERVE.SID

3 JOIN BOAT

4 ON BOAT.BID=RESERVE.BID

5 WHERE SAILOR.AGE>20 AND BOAT.BNAME LIKE ('%LAKE%');

SID SNAME

---- ------------

22 DUSTIN

64 HORATIO

22 DUSTIN

31 LUBBER

64 HORATIO

5 rows selected.

SQL> SELECT SAILOR.SID FROM SAILOR WHERE SAILOR.RATING>(SELECT SAILOR.RATING FROM SAILOR WHERE SAILOR.SNAME='BOB');

SID

----

22

31

32

58

64

71

74

7 rows selected.

SQL> SPOOL OFF