SQL\*Plus: Release 10.2.0.1.0 - Production on Tue Mar 26 14:51:10 2024

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SQL> connect system

Enter password:

Connected.

SQL> select \* from sailors;

no rows selected

SQL> select \* from boats;

no rows selected

SQL> select \* from reserves;

no rows selected

SQL> desc sailors

Name Null? Type

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

SID NOT NULL NUMBER(2)

SNAME VARCHAR2(10)

RATING NUMBER(2)

AGE NUMBER(2)

SQL> insert into sailors values (&sid,'&sname',&rating,&age);

Enter value for sid: 22

Enter value for sname: Dustin

Enter value for rating: 7

Enter value for age: 45

old 1: insert into sailors values (&sid,'&sname',&rating,&age)

new 1: insert into sailors values (22,'Dustin',7,45)

1 row created.

SQL> /

Enter value for sid: 29

Enter value for sname: Brutus

Enter value for rating: 1

Enter value for age: 33

old 1: insert into sailors values (&sid,'&sname',&rating,&age)

new 1: insert into sailors values (29,'Brutus',1,33)

1 row created.

SQL> /

Enter value for sid: 31

Enter value for sname: Lubber

Enter value for rating: 8

Enter value for age: 55

old 1: insert into sailors values (&sid,'&sname',&rating,&age)

new 1: insert into sailors values (31,'Lubber',8,55)

1 row created.

SQL> /

Enter value for sid: 32

Enter value for sname: Andy

Enter value for rating: 8

Enter value for age: 25

old 1: insert into sailors values (&sid,'&sname',&rating,&age)

new 1: insert into sailors values (32,'Andy',8,25)

1 row created.

SQL> /

Enter value for sid: 58

Enter value for sname: Rusty

Enter value for rating: 10

Enter value for age: 35

old 1: insert into sailors values (&sid,'&sname',&rating,&age)

new 1: insert into sailors values (58,'Rusty',10,35)

1 row created.

SQL> /

Enter value for sid: 64

Enter value for sname: Horatio

Enter value for rating: 7

Enter value for age: 35

old 1: insert into sailors values (&sid,'&sname',&rating,&age)

new 1: insert into sailors values (64,'Horatio',7,35)

1 row created.

SQL> /

Enter value for sid: 71

Enter value for sname: Zorba

Enter value for rating: 10

Enter value for age: 16

old 1: insert into sailors values (&sid,'&sname',&rating,&age)

new 1: insert into sailors values (71,'Zorba',10,16)

1 row created.

SQL> /

Enter value for sid: 74

Enter value for sname: Horatio

Enter value for rating: 9

Enter value for age: 35

old 1: insert into sailors values (&sid,'&sname',&rating,&age)

new 1: insert into sailors values (74,'Horatio',9,35)

1 row created.

SQL> /

Enter value for sid: 85

Enter value for sname: Art

Enter value for rating: 3

Enter value for age: 25

old 1: insert into sailors values (&sid,'&sname',&rating,&age)

new 1: insert into sailors values (85,'Art',3,25)

1 row created.

SQL> /

Enter value for sid: 95

Enter value for sname: Bob

Enter value for rating: 3

Enter value for age: 63

old 1: insert into sailors values (&sid,'&sname',&rating,&age)

new 1: insert into sailors values (95,'Bob',3,63)

1 row created.

SQL> select \* from sailors;

SID SNAME RATING AGE

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

22 Dustin 7 45

29 Brutus 1 33

31 Lubber 8 55

32 Andy 8 25

58 Rusty 10 35

64 Horatio 7 35

71 Zorba 10 16

74 Horatio 9 35

85 Art 3 25

95 Bob 3 63

10 rows selected.

SQL> insert into boats values(&bid,'&bname','&color');

Enter value for bid: 101

Enter value for bname: interlake

Enter value for color: blue

old 1: insert into boats values(&bid,'&bname','&color')

new 1: insert into boats values(101,'interlake','blue')

1 row created.

SQL> /

Enter value for bid: 102

Enter value for bname: interlake

Enter value for color: red

old 1: insert into boats values(&bid,'&bname','&color')

new 1: insert into boats values(102,'interlake','red')

1 row created.

SQL> 103

SP2-0226: Invalid line number

SQL> /

Enter value for bid: 103

Enter value for bname: clipper

Enter value for color: green

old 1: insert into boats values(&bid,'&bname','&color')

new 1: insert into boats values(103,'clipper','green')

1 row created.

SQL> /

Enter value for bid: 104

Enter value for bname: Marine

Enter value for color: red

old 1: insert into boats values(&bid,'&bname','&color')

new 1: insert into boats values(104,'Marine','red')

1 row created.

SQL> insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'));

Enter value for sid: 22

Enter value for bid: 101

Enter value for day: 10/10/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(22,101,to\_date('10/10/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 22

Enter value for bid: 102

Enter value for day: 10/10/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(22,102,to\_date('10/10/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 22

Enter value for bid: 103

Enter value for day: 10/8/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(22,103,to\_date('10/8/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 22

Enter value for bid: 104

Enter value for day: 10/7/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(22,104,to\_date('10/7/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 31

Enter value for bid: 102

Enter value for day: 11/10/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(31,102,to\_date('11/10/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 31

Enter value for bid: 103

Enter value for day: 11/06/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(31,103,to\_date('11/06/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 31

Enter value for bid: 104

Enter value for day: 11/12/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(31,104,to\_date('11/12/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 64

Enter value for bid: 101

Enter value for day: 09/05/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(64,101,to\_date('09/05/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 64

Enter value for bid: 102

Enter value for day: 09

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(64,102,to\_date('09','dd/mm/yyyy'))

insert into reserves values(64,102,to\_date('09','dd/mm/yyyy'))

\*

ERROR at line 1:

ORA-01840: input value not long enough for date format

SQL> /

Enter value for sid: 64

Enter value for bid: 102

Enter value for day: 09/08/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(64,102,to\_date('09/08/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 74

Enter value for bid: 103

Enter value for day: 09/08/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(74,103,to\_date('09/08/1998','dd/mm/yyyy'))

1 row created.

SQL> select \* from reserves;

SID BID DAY

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

22 101 10-OCT-98

22 102 10-OCT-98

22 103 10-AUG-98

22 104 10-JUL-98

31 102 11-OCT-98

31 103 11-JUN-98

31 104 11-DEC-98

64 101 09-MAY-98

64 102 09-AUG-98

74 103 09-AUG-98

10 rows selected.

SQL> select sid from reserves where bid in (select bid from boats where color='red')union select sid from reserves where bid in(select bid from boats where color='green');

SID

----------

22

31

64

74

SQL> select sname from sailors where sid in(select sid from reserves where bid=103) intersect select sname from sailors;

SNAME

----------

Dustin

Horatio

Lubber

SQL> select sname,age from sailors minus select sname,age from sailors where age>any (select age from sailors);

SNAME AGE

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

Zorba 16

SQL> SELECT s1.sname

2 FROM sailors s1

3 WHERE NOT EXISTS (

4 SELECT \*

5 FROM boats b

6 WHERE NOT EXISTS (

7 SELECT \*

8 FROM reserves r

9 WHERE r.sid = s1.sid

10 AND r.bid = b.bid

11 )

12 );

SNAME

----------

Dustin

SQL> select s.sname,s.age from sailors s where s.age=(select min(s2.age)from sailors s2);

SNAME AGE

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

Zorba 16

SQL> select rating,avg(age) from sailors group by rating;

RATING AVG(AGE)

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

1 33

8 40

7 40

3 44

10 25.5

9 35

6 rows selected.

SQL> select count(distinct sname) from sailors;

COUNT(DISTINCTSNAME)

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

9

SQL> select avg(age) from sailors;

AVG(AGE)

----------

36.7

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SQL> connect system

Enter password:

Connected.

SQL> select \* from sailors;

no rows selected

SQL> desc sailors

Name Null? Type

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

SID NOT NULL NUMBER(2)

SNAME VARCHAR2(10)

RATING NUMBER(2)

AGE NUMBER(2)

SQL> insert into sailors values(&sid,'&sname',&rating,&age);

Enter value for sid: 22

Enter value for sname: Dustin

Enter value for rating: 7

Enter value for age: 45

old 1: insert into sailors values(&sid,'&sname',&rating,&age)

new 1: insert into sailors values(22,'Dustin',7,45)

1 row created.

SQL> /

Enter value for sid: 29

Enter value for sname: Brutus

Enter value for rating: 1

Enter value for age: 33

old 1: insert into sailors values(&sid,'&sname',&rating,&age)

new 1: insert into sailors values(29,'Brutus',1,33)

1 row created.

SQL> /

Enter value for sid: 31

Enter value for sname: Lubber

Enter value for rating: 8

Enter value for age: 55

old 1: insert into sailors values(&sid,'&sname',&rating,&age)

new 1: insert into sailors values(31,'Lubber',8,55)

1 row created.

SQL> /

Enter value for sid: 32

Enter value for sname: Andy

Enter value for rating: 8

Enter value for age: 25

old 1: insert into sailors values(&sid,'&sname',&rating,&age)

new 1: insert into sailors values(32,'Andy',8,25)

1 row created.

SQL> /

Enter value for sid: 58

Enter value for sname: Rusty

Enter value for rating: 10

Enter value for age: 35

old 1: insert into sailors values(&sid,'&sname',&rating,&age)

new 1: insert into sailors values(58,'Rusty',10,35)

1 row created.

SQL> /

Enter value for sid: 64

Enter value for sname: Horatio

Enter value for rating: 7

Enter value for age: 35

old 1: insert into sailors values(&sid,'&sname',&rating,&age)

new 1: insert into sailors values(64,'Horatio',7,35)

1 row created.

SQL> /

Enter value for sid: 71

Enter value for sname: Zorba

Enter value for rating: 10

Enter value for age: 16

old 1: insert into sailors values(&sid,'&sname',&rating,&age)

new 1: insert into sailors values(71,'Zorba',10,16)

1 row created.

SQL> /

Enter value for sid: 74

Enter value for sname: Horatio

Enter value for rating: 7

Enter value for age: 35

old 1: insert into sailors values(&sid,'&sname',&rating,&age)

new 1: insert into sailors values(74,'Horatio',7,35)

1 row created.

SQL> /

Enter value for sid: 85

Enter value for sname: Art

Enter value for rating: 3

Enter value for age: 25

old 1: insert into sailors values(&sid,'&sname',&rating,&age)

new 1: insert into sailors values(85,'Art',3,25)

1 row created.

SQL> /

Enter value for sid: 95

Enter value for sname: Bob

Enter value for rating: 3

Enter value for age: 63

old 1: insert into sailors values(&sid,'&sname',&rating,&age)

new 1: insert into sailors values(95,'Bob',3,63)

1 row created.

SQL> select \* from sailors;

SID SNAME RATING AGE

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

22 Dustin 7 45

29 Brutus 1 33

31 Lubber 8 55

32 Andy 8 25

58 Rusty 10 35

64 Horatio 7 35

71 Zorba 10 16

74 Horatio 7 35

85 Art 3 25

95 Bob 3 63

10 rows selected.

SQL> commit;

Commit complete.

SQL> insert into boats values(&bid,'&bname','&bname');

Enter value for bid: 101

Enter value for bname: Interlake

Enter value for bname: blue

old 1: insert into boats values(&bid,'&bname','&bname')

new 1: insert into boats values(101,'Interlake','blue')

1 row created.

SQL> /

Enter value for bid: 102

Enter value for bname: interlake

Enter value for bname: red

old 1: insert into boats values(&bid,'&bname','&bname')

new 1: insert into boats values(102,'interlake','red')

1 row created.

SQL> rollback;

Rollback complete.

SQL> select \* from boats;

no rows selected

SQL> insert into boats values(&bid,'&bname','&color');

Enter value for bid: 101

Enter value for bname: Interlake

Enter value for color: blue

old 1: insert into boats values(&bid,'&bname','&color')

new 1: insert into boats values(101,'Interlake','blue')

1 row created.

SQL> /

Enter value for bid: 102

Enter value for bname: Interlake

Enter value for color: red

old 1: insert into boats values(&bid,'&bname','&color')

new 1: insert into boats values(102,'Interlake','red')

1 row created.

SQL> /

Enter value for bid: 103

Enter value for bname: Clipper

Enter value for color: green

old 1: insert into boats values(&bid,'&bname','&color')

new 1: insert into boats values(103,'Clipper','green')

1 row created.

SQL> /

Enter value for bid: 104

Enter value for bname: Marine

Enter value for color: red

old 1: insert into boats values(&bid,'&bname','&color')

new 1: insert into boats values(104,'Marine','red')

1 row created.

SQL> commit;

Commit complete.

SQL> insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'));

Enter value for sid: 22

Enter value for bid: 101

Enter value for day: 10/10/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(22,101,to\_date('10/10/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 22

Enter value for bid: 102

Enter value for day: 10/10/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(22,102,to\_date('10/10/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 22

Enter value for bid: 103

Enter value for day: 10/8/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(22,103,to\_date('10/8/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 22

Enter value for bid: 104

Enter value for day: 10/7/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(22,104,to\_date('10/7/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 31

Enter value for bid: 102

Enter value for day: 11/10/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(31,102,to\_date('11/10/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 31

Enter value for bid: 103

Enter value for day: 11/6/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(31,103,to\_date('11/6/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 31

Enter value for bid: 104

Enter value for day: 11/12/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(31,104,to\_date('11/12/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 64

Enter value for bid: 101

Enter value for day: 09/08/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(64,101,to\_date('09/08/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 64

Enter value for bid: 102

Enter value for day: 09/08/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(64,102,to\_date('09/08/1998','dd/mm/yyyy'))

1 row created.

SQL> /

Enter value for sid: 74

Enter value for bid: 103

Enter value for day: 09/08/1998

old 1: insert into reserves values(&sid,&bid,to\_date('&day','dd/mm/yyyy'))

new 1: insert into reserves values(74,103,to\_date('09/08/1998','dd/mm/yyyy'))

1 row created.

SQL> select \* from reserves;

SID BID DAY

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

22 101 10-OCT-98

22 102 10-OCT-98

22 103 10-AUG-98

22 104 10-JUL-98

31 102 11-OCT-98

31 103 11-JUN-98

31 104 11-DEC-98

64 101 09-AUG-98

64 102 09-AUG-98

74 103 09-AUG-98

10 rows selected.

SQL> commit;

Commit complete.

SQL> select sname from sailors where sid in(select sid from reserves where bid=103);

SNAME

----------

Dustin

Lubber

Horatio

SQL> select sname,age from sailors where age>any(select age from sailors);

SNAME AGE

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

Bob 63

Lubber 55

Dustin 45

Rusty 35

Horatio 35

Horatio 35

Brutus 33

Art 25

Andy 25

9 rows selected.

SQL> select sname,age from sailors where age<any(select age from sailors);

SNAME AGE

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

Zorba 16

Art 25

Andy 25

Brutus 33

Rusty 35

Horatio 35

Horatio 35

Dustin 45

Lubber 55

9 rows selected.

SQL> select sname,age from sailors where age<=all(select age from sailors);

SNAME AGE

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

Zorba 16

SQL> select sname from sailors where sid in(select bid from reserves);

no rows selected

SQL> select sname from sailors where sid in(select bid from reserves where reserves.sid=sailors.sid and reserves.bid=boats.bid );

select sname from sailors where sid in(select bid from reserves where reserves.sid=sailors.sid and reserves.bid=boats.bid )

\*

ERROR at line 1:

ORA-00904: "BOATS"."BID": invalid identifier

SQL> select sname from sailors where sid in(select sid from reserves where bid in(select bid from boats where bid=101 and bid=102 and bid=103 and bid=104));

no rows selected

SQL> select sname from sailors where sid in(select sid from reserves where bid in(select bid from boats where bid=101 or bid=102 or bid=103 or bid=104));

SNAME

----------

Dustin

Lubber

Horatio

Horatio

SQL> select sname from sailors where sid in(select bid from reserves where bid in(select bid from boats where bid=101 or bid=102 or bid=103 or bid=104));

no rows selected

SQL> select sname from sailors where sid in(select bid from reserves where bid in(select bid from boats where bid=101 and bid=102 and bid=103 and bid=104));

no rows selected

SQL> select sname from sailors where sid in(select sid from reserves where bid in(select bid from boats where bid=101 and bid=102 and bid=103 and bid=104));

no rows selected

SQL> SELECT s.sname

2 FROM sailors s

3 WHERE NOT EXISTS (

4 SELECT b.bid

5 FROM boats b

6 WHERE NOT EXISTS (

7 SELECT r.bid

8 FROM reserves r

9 WHERE r.sid = s.sid AND r.bid = b.bid

10 )

11 );

SNAME

----------

Dustin

SQL> select age from sailors group by age;

AGE

----------

25

55

35

63

45

33

16

7 rows selected.

SQL> select min(age) from sailors group by rating;

MIN(AGE)

----------

33

25

35

25

16

SQL> select rating,min(age) from sailors group by rating;

RATING MIN(AGE)

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

1 33

8 25

7 35

3 25

10 16

SQL>