

SQL\*Plus: Release 10.2.0.1.0 - Production on Mon Apr 1 15:59:33 2024

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SQL> connect system

Enter password:

Connected.

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> select \* from reserve;

no rows selected

SQL> select \* from boat;

BID	BNAME	COLOR
-----	-------	-------

-----

101	Interlake	Blue
-----	-----------	------

102	Interlake	Red
-----	-----------	-----

103	Clipper	Green
-----	---------	-------

104	Marine	Red
-----	--------	-----

```
SQL> insert into table reserve values(&sid,&bid,'&day');
```

```
Enter value for sid: 22
```

```
Enter value for bid: 101
```

```
Enter value for day: 10/10/98
```

```
old 1: insert into table reserve values(&sid,&bid,'&day')
```

```
new 1: insert into table reserve values(22,101,'10/10/98')
```

```
insert into table reserve values(22,101,'10/10/98')
```

```
*
```

```
ERROR at line 1:
```

```
ORA-00903: invalid table name
```

```
SQL> insert into reserve values(&sid,&bid,'&day');
```

```
Enter value for sid: 22
```

```
Enter value for bid: 102
```

```
Enter value for day: 10/10/98
```

```
old 1: insert into reserve values(&sid,&bid,'&day')
```

```
new 1: insert into reserve values(22,102,'10/10/98')
```

```
1 row created.
```

```
SQL> /
```

```
Enter value for sid: 22
```

```
Enter value for bid: 102
```

Enter value for day: 10/10/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(22,102,'10/10/98')

1 row created.

SQL> /

Enter value for sid: 22

Enter value for bid: 103

Enter value for day: 10/08/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(22,103,'10/08/98')

1 row created.

SQL> /

Enter value for sid: 22

Enter value for bid: 104

Enter value for day: 10/07/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(22,104,'10/07/98')

1 row created.

SQL> /

Enter value for sid: 31

Enter value for bid: 102

Enter value for day: 11/10/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(31,102,'11/10/98')

1 row created.

SQL> /

Enter value for sid: 31

Enter value for bid: 103

Enter value for day: 11/06/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(31,103,'11/06/98')

1 row created.

SQL> /

Enter value for sid: 31

Enter value for bid: 104

Enter value for day: 11/12/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(31,104,'11/12/98')

1 row created.

SQL> /

Enter value for sid: 64

Enter value for bid: 101

Enter value for day: 09/05/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(64,101,'09/05/98')

1 row created.

SQL> /

Enter value for sid: 64

Enter value for bid: 102

Enter value for day: 09/05/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(64,102,'09/05/98')

1 row created.

SQL> /

Enter value for sid: 74

Enter value for bid: 103

Enter value for day: 09/08/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(74,103,'09/08/98')

1 row created.

SQL> select \* from reserve;

SID	BID DAY
22	102 10/10/98
22	102 10/10/98
22	103 10/08/98
22	104 10/07/98
31	102 11/10/98
31	103 11/06/98
31	104 11/12/98
64	101 09/05/98
64	102 09/05/98
74	103 09/08/98

10 rows selected.

SQL> delete from reserve where sid=102;

0 rows deleted.

SQL> delete from reserve where sid=22 and bid=102;

2 rows deleted.

SQL> insert into reserve values(&sid,&bid,'&day');

Enter value for sid: 22

Enter value for bid: 101

Enter value for day: 10/10/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(22,101,'10/10/98')

1 row created.

SQL> /

Enter value for sid: 22

Enter value for bid: 102

Enter value for day: 10/10/98

old 1: insert into reserve values(&sid,&bid,'&day')

new 1: insert into reserve values(22,102,'10/10/98')

1 row created.

SQL> select \* from reserve;

SID	BID	DAY
-----	-----	-----

```

-----
22    103 10/08/98
22    104 10/07/98
31    102 11/10/98
31    103 11/06/98
31    104 11/12/98
64    101 09/05/98
64    102 09/05/98
74    103 09/08/98
22    101 10/10/98
22    102 10/10/98

```

10 rows selected.

SQL> commit;

Commit complete.

SQL> select \* from reserve where bid=103;

```

SID    BID DAY
-----
22    103 10/08/98
31    103 11/06/98
74    103 09/08/98

```

SQL> select sid,sname from sailor where sid in (select \* from reserve where bid=103);  
select sid,sname from sailor where sid in (select \* from reserve where bid=103)

\*

ERROR at line 1:

ORA-00913: too many values

```
SQL> select sname from sailor where sid in (select * from reserve where bid=103);
```

```
select sname from sailor where sid in (select * from reserve where bid=103)
```

\*

ERROR at line 1:

ORA-00913: too many values

```
SQL> select sid,sname from sailor where sid in(select * from reserve where bid=103);
```

```
select sid,sname from sailor where sid in(select * from reserve where bid=103)
```

\*

ERROR at line 1:

ORA-00913: too many values

```
SQL> select sname from sailor where sid in(select sid from reserve where bid=103);
```

SNAME

-----

Dustin

Lubber

Horatio

```
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> select * from sailor where sid=min(sid);
```

```
select * from sailor where sid=min(sid)
```

\*

ERROR at line 1:

ORA-00934: group function is not allowed here

```
SQL> select min(age) from sailor;;
```

```
select min(age) from sailor;
```

\*

ERROR at line 1:

ORA-00911: invalid character

```
SQL> select min(age) from sailor;
```

MIN(AGE)

-----

16

```
SQL> select sname,min(age) as age from sailor;
```

```
select sname,min(age) as age from sailor
```

```
*
```

ERROR at line 1:

ORA-00937: not a single-group group function

```
SQL> select min(age) as age from sailor;
```

```
AGE
```

```
-----
```

```
16
```

```
SQL> select * from sailor where age=(select min(age) as age from sailor);
```

```
SID SNAME      RATING    AGE
```

```
-----
```

```
71 Zorba       10      16
```

```
SQL> select sname,age from sailor where age=(select min(age) as age from sailor);
```

```
SNAME      AGE
```

```
-----
```

```
Zorba      16
```

```
SQL> select sid,bid from reserve where bid all( select * from boat);
```

```
select sid,bid from reserve where bid all( select * from boat)
```

```
*
```

ERROR at line 1:

ORA-00920: invalid relational operator

```
SQL> select sid,bid from reserve where all( select * from boat);
```

```
select sid,bid from reserve where all( select * from boat)
```

\*

ERROR at line 1:

ORA-00936: missing expression

```
SQL> select sid,bid from reserve where bid in ( select * from boat);
```

```
select sid,bid from reserve where bid in ( select * from boat)
```

\*

ERROR at line 1:

ORA-00913: too many values

```
SQL> select sid,bid from reserve where bid in ( select * from boat);
```

```
select sid,bid from reserve where bid in ( select * from boat)
```

\*

ERROR at line 1:

ORA-00913: too many values

```
SQL> select sid,bid from reserve where bid in ( select bid from boat);
```

SID	BID
22	103
22	104
31	102
31	103
31	104
64	101

64	102
74	103
22	101
22	102

10 rows selected.

```
SQL> select sid,bid from reserve where bid all ( select bid from boat);
select sid,bid from reserve where bid all ( select bid from boat)
```

\*

ERROR at line 1:

ORA-00920: invalid relational operator

```
SQL> select sname from sailor where not exists(select bid from boat where not exists(select bid from
reserve));
```

SNAME

-----

Dustin

Brutus

Lubber

Andy

Rusty

Horatio

Zorba

Horatio

Art

Bob

10 rows selected.

```
SQL> select bid from boat where not exists(select bid from reserve);
```

no rows selected

```
SQL> select sid from reserve where all ( select bid from boat);
```

```
select sid from reserve where all ( select bid from boat)
```

\*

ERROR at line 1:

ORA-00936: missing expression

```
SQL> select sid from reserve where all( select bid from boat);;
```

```
select sid from reserve where all( select bid from boat);
```

\*

ERROR at line 1:

ORA-00936: missing expression

```
SQL> select sid from reserve where bid in all( select bid from boat);
```

```
select sid from reserve where bid in all( select bid from boat)
```

\*

ERROR at line 1:

ORA-00936: missing expression

```
SQL> select sid from reserve where bid= all( select bid from boat);
```

no rows selected

```
SQL> select sid from reserve where sid= all( select bid from boat);
```

no rows selected

```
SQL> select sid from reserve where bid= all( select bid from boat );
```

no rows selected

```
SQL> select rating,count(sid) from sailor group by rating;
```

RATING COUNT(SID)

```
-----
1      1
8      2
7      2
3      2
10     2
9      1
```

6 rows selected.

```
SQL> select rating,sname from sailor group by rating;
```

```
select rating,sname from sailor group by rating
```

\*

ERROR at line 1:

ORA-00979: not a GROUP BY expression

```
SQL> select rating,count(sname) from sailor group by rating;
```

RATING COUNT(SNAME)

```
-----
```

1	1
8	2
7	2
3	2
10	2
9	1

6 rows selected.

SQL> select \* from sailor group by rating;

select \* from sailor group by rating

\*

ERROR at line 1:

ORA-00979: not a GROUP BY expression

SQL> select sname from sailor group by rating;

select sname from sailor group by rating

\*

ERROR at line 1:

ORA-00979: not a GROUP BY expression

SQL> select count(sname) from sailor group by rating;

COUNT(SNAME)

-----

1

2

2

2

2

1

6 rows selected.

SQL> select rating,count(sname) from sailor group by rating;

RATING COUNT(SNAME)

-----

1 1

8 2

7 2

3 2

10 2

9 1

6 rows selected.

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

RATING AVG(AGE)

-----

1 33

8 40.5

7 40

3 44.5

10 25.5

9 35

6 rows selected.



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

RATING	MIN(AGE)
1	33
8	25.5
7	35
3	25.5
10	16
9	35

6 rows selected.

```
SQL> select * from reserve where sid in (select sid from sailor);
```

SID	BID DAY
22	103 10/08/98
22	104 10/07/98
31	102 11/10/98
31	103 11/06/98
31	104 11/12/98
64	101 09/05/98
64	102 09/05/98
74	103 09/08/98
22	101 10/10/98
22	102 10/10/98

10 rows selected.

```
SQL> select sid,bid from reserve where sid in (select sid from sailor);
```

SID	BID
22	103
22	104
31	102
31	103
31	104
64	101
64	102
74	103
22	101
22	102

10 rows selected.

```
SQL> select sid,sname from sailor where sid in (select sid from reserve where bid=all(select bid from
boat) );
```

no rows selected

```
SQL> select sid,sname from sailor where sid in (select sid from reserve where bid=all(select bid from
boat) );
```

no rows selected

```
SQL> select sid from reserve where bid=all(select bid from boat);
```

no rows selected

```
SQL> select sid from reserve where bid in (select bid from boat);
```

```
SID
-----
22
22
31
31
31
64
64
74
22
22
```

10 rows selected.

```
SQL> select sname from sailor where not exists((select bid from boat)except (select bid from reserve
where reserve.sid=sailor.id))
```

```
2 select sname from sailor where not exists((select bid from boat)except (select bid from reserve
where reserve.sid=sailor.id));
```

```
select sname from sailor where not exists((select bid from boat)except (select bid from reserve
where reserve.sid=sailor.id))
```

\*

ERROR at line 1:

ORA-00907: missing right parenthesis

```
SQL> select sname from sailor where not exists((select bid from boat) except (select bid from
reserve where reserve.sid=sailor.id));
```

```
select sname from sailor where not exists((select bid from boat) except (select bid from reserve
where reserve.sid=sailor.id))
```

\*

ERROR at line 1:

ORA-00907: missing right parenthesis

```
SQL> select sname from sailor where not exists(select bid from boat) except (select bid from reserve
where reserve.sid=sailor.id);
```

```
select sname from sailor where not exists(select bid from boat) except (select bid from reserve
where reserve.sid=sailor.id)
```

\*

ERROR at line 1:

ORA-00933: SQL command not properly ended

```
SQL> select s.sname from sailor s where not exists((select b.bid from boat b) except (select r.bid
from reserve r where r.sid=s.id));
```

```
select s.sname from sailor s where not exists((select b.bid from boat b) except (select r.bid from
reserve r where r.sid=s.id))
```

\*

ERROR at line 1:

ORA-00907: missing right parenthesis

```
SQL> select s.sname from sailor s where not exists(select b.bid from boat b where not exists (select
r.bid from reserve r where r.bid=b.bid and r.sid=s.sid));
```

SNAME

-----

Dustin

```
SQL> create table student (sid int primary key,sname varchar(10));
```

```
create table student (sid int primary key,sname varchar(10))
```

\*

ERROR at line 1:

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

```
SQL> create table fruits (fid int primary key, fname varchar(10));
```

Table created.

```
SQL> insert into fruits values(&fid, '&fname');
```

Enter value for fid: 1

Enter value for fname: Apple

```
old 1: insert into fruits values(&fid, '&fname')
```

```
new 1: insert into fruits values(1, 'Apple')
```

1 row created.

```
SQL> /
```

Enter value for fid: 2

Enter value for fname: Orange

```
old 1: insert into fruits values(&fid, '&fname')
```

```
new 1: insert into fruits values(2, 'Orange')
```

1 row created.

```
SQL> /
```

Enter value for fid: 3

Enter value for fname: Grapes

```
old 1: insert into fruits values(&fid, '&fname')
```

```
new 1: insert into fruits values(3, 'Grapes')
```

1 row created.

```
SQL> /
```

Enter value for fid: 4

Enter value for fname: Starwberry

old 1: insert into fruits values(&fid,&fname')

new 1: insert into fruits values(4,'Starwberry')

1 row created.

SQL> /

Enter value for fid: 5

Enter value for fname: Kiwi

old 1: insert into fruits values(&fid,&fname')

new 1: insert into fruits values(5,'Kiwi')

1 row created.

SQL> select \* from fruits;

FID	FNAME
1	Apple
2	Orange
3	Grapes
4	Starwberry
5	Kiwi

SQL> savepoint A;

Savepoint created.

SQL> commit;

Commit complete.

```
SQL> insert into fruits values(&fid,&fname');
```

```
Enter value for fid: 6
```

```
Enter value for fname: Rambuttan
```

```
old 1: insert into fruits values(&fid,&fname')
```

```
new 1: insert into fruits values(6,'Rambuttan')
```

```
1 row created.
```

```
SQL> /
```

```
Enter value for fid: 7
```

```
Enter value for fname: Passionfruit
```

```
old 1: insert into fruits values(&fid,&fname')
```

```
new 1: insert into fruits values(7,'Passionfruit')
```

```
insert into fruits values(7,'Passionfruit')
```

```
*
```

```
ERROR at line 1:
```

```
ORA-12899: value too large for column "SYSTEM"."FRUITS"."FNAME" (actual: 12,  
maximum: 10)
```

```
SQL> /
```

```
Enter value for fid: 7
```

```
Enter value for fname: lemon
```

```
old 1: insert into fruits values(&fid,&fname')
```

```
new 1: insert into fruits values(7,'lemon')
```

```
1 row created.
```

```
SQL> select * from fruits;
```

FID FNAME

-----

1 Apple

2 Orange

3 Grapes

4 Starwberry

5 Kiwi

6 Rambuttan

7 lemon

7 rows selected.

SQL> savepoint A;

Savepoint created.

SQL> insert into fruits values(&fid,&fname');

Enter value for fid: 8

Enter value for fname: Mulberry

old 1: insert into fruits values(&fid,&fname')

new 1: insert into fruits values(8,'Mulberry')

1 row created.

SQL> /

Enter value for fid: 9

Enter value for fname: Blueberry

old 1: insert into fruits values(&fid,&fname')

new 1: insert into fruits values(9,'Blueberry')

1 row created.



```
SQL> select * from fruits;
```

FID FNAME

-----

1 Apple  
2 Orange  
3 Grapes  
4 Starwberry  
5 Kiwi  
6 Rambuttan  
7 lemon  
8 Mulberry  
9 Blueberry

9 rows selected.

```
SQL> rollback to savepoint A;
```

Rollback complete.

```
SQL> select * from fruits;
```

FID FNAME

-----

1 Apple  
2 Orange  
3 Grapes  
4 Starwberry  
5 Kiwi  
6 Rambuttan

7 lemon

7 rows selected.

SQL>