

SQL*Plus: Release 18.0.0.0.0 - Production on Mon Oct 14 09:37:40 2024
Version 18.4.0.0.0

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Enter user-name: system

Enter password:

Last Successful login time: Mon Oct 14 2024 09:13:40 +05:30

Connected to:

Oracle Database 18c Express Edition Release 18.0.0.0.0 - Production

Version 18.4.0.0.0

```
SQL> create table Department(dept_no int primary key, dept_name varchar(15),
location varchar(10));
create table Department(dept_no int primary key, dept_name varchar(15), location
varchar(10))
*
```

ERROR at line 1:

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

```
SQL> create table Depart(dept_no int primary key, dept_name varchar(15), location
varchar(10));
```

Table created.

```
SQL> desc Depart;
```

Name	Null?	Type
DEPT_NO	NOT NULL	NUMBER(38)
DEPT_NAME		VARCHAR2(15)
LOCATION		VARCHAR2(10)

```
SQL> create table empl(emp_no int primary key, emp_name varchar(20), job
varchar(15), mgr int, join_date date, salary int, comm int, address varchar(10),
dept_no int references Depart(dept_no));
```

Table created.

```
SQL> desc empl;
```

Name	Null?	Type
EMP_NO	NOT NULL	NUMBER(38)
EMP_NAME		VARCHAR2(20)
JOB		VARCHAR2(15)
MGR		NUMBER(38)
JOIN_DATE		DATE
SALARY		NUMBER(38)

COMM	NUMBER(38)
ADDRESS	VARCHAR2(10)
DEPT_NO	NUMBER(38)

```
SQL> insert into Depart values(&dept_no, '&dept_name', '&location');
Enter value for dept_no: 10
Enter value for dept_name: Accounting
Enter value for location: Mumbai
old 1: insert into Depart values(&dept_no, '&dept_name', '&location')
new 1: insert into Depart values(10, 'Accounting', 'Mumbai')
```

1 row created.

```
SQL> /
Enter value for dept_no: 20
Enter value for dept_name: Research
Enter value for location: Pune
old 1: insert into Depart values(&dept_no, '&dept_name', '&location')
new 1: insert into Depart values(20, 'Research', 'Pune')
```

1 row created.

```
SQL> /
Enter value for dept_no: 30
Enter value for dept_name: Sales
Enter value for location: Nashik
old 1: insert into Depart values(&dept_no, '&dept_name', '&location')
new 1: insert into Depart values(30, 'Sales', 'Nashik')
```

1 row created.

```
SQL> /
Enter value for dept_no: 40
Enter value for dept_name: Operations
Enter value for location: Nagpur
old 1: insert into Depart values(&dept_no, '&dept_name', '&location')
new 1: insert into Depart values(40, 'Operations', 'Nagpur')
```

1 row created.

```
SQL> COMMIT;
```

Commit complete.

```
SQL> select * from Depart;
```

DEPT_NO	DEPT_NAME	LOCATION
10	Accounting	Mumbai
20	Research	Pune

30 Sales	Nashik
40 Operations	Nagpur

```
SQL> insert into empl values(&emp_no, '&emp_name', '&job', &mgr, '&join_date',
&salary, &comm, '&address', &dept_no);
Enter value for emp_no: 1001
Enter value for emp_name: Nilesh Joshi
Enter value for job: Clerk
Enter value for mgr: 1005
Enter value for join_date: 17-DEC-1995
Enter value for salary: 28000
Enter value for comm: 600
Enter value for address: Nashik
Enter value for dept_no: 20
old 1: insert into empl values(&emp_no, '&emp_name', '&job', &mgr, '&join_date',
&salary, &comm, '&address', &dept_no)
new 1: insert into empl values(1001, 'Nilesh Joshi', 'Clerk', 1005, '17-DEC-1995',
28000, 600, 'Nashik', 20)
```

1 row created.

```
SQL> /
Enter value for emp_no: 1002
Enter value for emp_name: Avinash Pawar
Enter value for job: SalesMan
Enter value for mgr: 1003
Enter value for join_date: 25-FEB-1996
Enter value for salary: 5000
Enter value for comm: 1200
Enter value for address: Nagpur
Enter value for dept_no: 30
old 1: insert into empl values(&emp_no, '&emp_name', '&job', &mgr, '&join_date',
&salary, &comm, '&address', &dept_no)
new 1: insert into empl values(1002, 'Avinash Pawar', 'SalesMan', 1003,
'25-FEB-1996', 5000, 1200, 'Nagpur', 30)
```

1 row created.

```
SQL> /
Enter value for emp_no: 1003
Enter value for emp_name: Amit Kumar
Enter value for job: Manager
Enter value for mgr: 1004
Enter value for join_date: 02-APR-1986
Enter value for salary: 2000
Enter value for comm: NULL
Enter value for address: Pune
Enter value for dept_no: 30
old 1: insert into empl values(&emp_no, '&emp_name', '&job', &mgr, '&join_date',
&salary, &comm, '&address', &dept_no)
```

```
new 1: insert into empl values(1003, 'Amit Kumar', 'Manager', 1004, '02-APR-1986',
2000, NULL, 'Pune', 30)
```

1 row created.

```
SQL> /
```

```
Enter value for emp_no: 1004
```

```
Enter value for emp_name: Nitin Kulkarni
```

```
Enter value for job: President
```

```
Enter value for mgr: NULL
```

```
Enter value for join_date: 19-APR-1986
```

```
Enter value for salary: 50000
```

```
Enter value for comm: NULL
```

```
Enter value for address: Mumbai
```

```
Enter value for dept_no: 10
```

```
old 1: insert into empl values(&emp_no, '&emp_name', '&job', &mgr, '&join_date',
&salary, &comm, '&address', &dept_no)
```

```
new 1: insert into empl values(1004, 'Nitin Kulkarni', 'President', NULL,
'19-APR-1986', 50000, NULL, 'Mumbai', 10)
```

1 row created.

```
SQL> /
```

```
Enter value for emp_no: 1005
```

```
Enter value for emp_name: Neeraj Sharma
```

```
Enter value for job: Analyst
```

```
Enter value for mgr: 1003
```

```
Enter value for join_date: 03-DEC-1998
```

```
Enter value for salary: 12000
```

```
Enter value for comm: NULL
```

```
Enter value for address: SATARA
```

```
Enter value for dept_no: 20
```

```
old 1: insert into empl values(&emp_no, '&emp_name', '&job', &mgr, '&join_date',
&salary, &comm, '&address', &dept_no)
```

```
new 1: insert into empl values(1005, 'Neeraj Sharma', 'Analyst', 1003,
'03-DEC-1998', 12000, NULL, 'SATARA', 20)
```

1 row created.

```
SQL> /
```

```
Enter value for emp_no: 1006
```

```
Enter value for emp_name: Pushkar Deshpande
```

```
Enter value for job: SalesMAN
```

```
Enter value for mgr: 1003
```

```
Enter value for join_date: 01-SEP-1996
```

```
Enter value for salary: 6500
```

```
Enter value for comm: 1500
```

```
Enter value for address: Pune
```

```
Enter value for dept_no: 30
```

```
old 1: insert into empl values(&emp_no, '&emp_name', '&job', &mgr, '&join_date',
```

```
&salary, &comm, '&address', &dept_no)
new 1: insert into empl values(1006, 'Pushkar Deshpande', 'SalesMAN', 1003,
'01-SEP-1996', 6500, 1500, 'Pune', 30)
```

1 row created.

```
SQL> COMMIT;
```

Commit complete.

```
SQL> set linesize 210;
```

```
SQL> select * from empl;
```

EMP_NO	EMP_NAME	JOB	MGR	JOIN_DATE	SALARY
COMM	ADDRESS	DEPT_NO			
1001	Nilesh Joshi	Clerk	1005	17-DEC-95	28000
600	Nashik	20			
1002	Avinash Pawar	SalesMan	1003	25-FEB-96	5000
1200	Nagpur	30			
1003	Amit Kumar	Manager	1004	02-APR-86	2000
	Pune	30			
1004	Nitin Kulkarni	President		19-APR-86	50000
	Mumbai	10			
1005	Neeraj Sharma	Analyst	1003	03-DEC-98	12000
	SATARA	20			
1006	Pushkar Deshpande	SalesMAN	1003	01-SEP-96	6500
1500	Pune	30			

6 rows selected.

```
SQL> select emp_no, emp_name, job, mgr, join_date, salary, comm, address, dept_no
from empl;
```

EMP_NO	EMP_NAME	JOB	MGR	JOIN_DATE	SALARY
COMM	ADDRESS	DEPT_NO			
1001	Nilesh Joshi	Clerk	1005	17-DEC-95	28000
600	Nashik	20			
1002	Avinash Pawar	SalesMan	1003	25-FEB-96	5000
1200	Nagpur	30			
1003	Amit Kumar	Manager	1004	02-APR-86	2000
	Pune	30			
1004	Nitin Kulkarni	President		19-APR-86	50000
	Mumbai	10			
1005	Neeraj Sharma	Analyst	1003	03-DEC-98	12000
	SATARA	20			
1006	Pushkar Deshpande	SalesMAN	1003	01-SEP-96	6500

1500 Pune 30

6 rows selected.

SQL> select distinct (job) from empl;

JOB

SalesMan
President
Clerk
Manager
Analyst

SQL> update Depart set location='Banglore' where dept_no = 40;

1 row updated.

SQL> select * from Depart;

DEPT_NO	DEPT_NAME	LOCATION
10	Accounting	Mumbai
20	Research	Pune
30	Sales	Nashik
40	Operations	Banglore

SQL> update empl set emp_name='Nikhil Gosavi' where emp_no = 1003;

1 row updated.

SQL> select * from empl;

EMP_NO	EMP_NAME	JOB	MGR	JOIN_DATE	SALARY
COMM	ADDRESS	DEPT_NO			
1001	Nilesh Joshi	Clerk	1005	17-DEC-95	28000
600	Nashik	20			
1002	Avinash Pawar	SalesMan	1003	25-FEB-96	5000
1200	Nagpur	30			
1003	Nikhil Gosavi	Manager	1004	02-APR-86	2000
	Pune	30			
1004	Nitin Kulkarni	President		19-APR-86	50000
	Mumbai	10			
1005	Neeraj Sharma	Analyst	1003	03-DEC-98	12000
	SATARA	20			
1006	Pushkar Deshpande	SalesMan	1003	01-SEP-96	6500
1500	Pune	30			

6 rows selected.

```
SQL> delete from empl where emp_name='Pushkar Deshpande';
```

1 row deleted.

```
SQL> select * from empl;
```

EMP_NO	EMP_NAME	JOB	MGR	JOIN_DATE	SALARY
COMM	ADDRESS	DEPT_NO			
1001	Nilesh Joshi	Clerk	1005	17-DEC-95	28000
600	Nashik	20			
1002	Avinash Pawar	SalesMan	1003	25-FEB-96	5000
1200	Nagpur	30			
1003	Nikhil Gosavi	Manager	1004	02-APR-86	2000
	Pune	30			
1004	Nitin Kulkarni	President		19-APR-86	50000
	Mumbai	10			
1005	Neeraj Sharma	Analyst	1003	03-DEC-98	12000
	SATARA	20			

```
SQL> create table depart_temp as select * from Depart where dept_no=1;
```

Table created.

```
SQL> desc depart_temp
```

Name	Null?	Type
DEPT_NO		NUMBER(38)
DEPT_NAME		VARCHAR2(15)
LOCATION		VARCHAR2(10)

```
SQL> select * from depart_temp;
```

no rows selected

```
SQL> create table temp1 as select * from Depart;
```

Table created.

```
SQL> select * from temp1;
```

DEPT_NO	DEPT_NAME	LOCATION
10	Accounting	Mumbai
20	Research	Pune
30	Sales	Nashik
40	Operations	Banglore

SQL> select * from empl where salary between 5000 and 20000;

EMP_NO	EMP_NAME	JOB	MGR	JOIN_DATE	SALARY
COMM	ADDRESS	DEPT_NO			
1002	Avinash Pawar	SalesMan	1003	25-FEB-96	5000
1200	Nagpur	30			
1005	Neeraj Sharma	Analyst	1003	03-DEC-98	12000
	SATARA	20			

SQL> select * from empl where job != 'SalesMan';

EMP_NO	EMP_NAME	JOB	MGR	JOIN_DATE	SALARY
COMM	ADDRESS	DEPT_NO			
1001	Nilesh Joshi	Clerk	1005	17-DEC-95	28000
600	Nashik	20			
1003	Nikhil Gosavi	Manager	1004	02-APR-86	2000
	Pune	30			
1004	Nitin Kulkarni	President		19-APR-86	50000
	Mumbai	10			
1005	Neeraj Sharma	Analyst	1003	03-DEC-98	12000
	SATARA	20			

SQL> select * from empl where job in ('Manager', 'Analyst');

EMP_NO	EMP_NAME	JOB	MGR	JOIN_DATE	SALARY
COMM	ADDRESS	DEPT_NO			
1003	Nikhil Gosavi	Manager	1004	02-APR-86	2000
	Pune	30			
1005	Neeraj Sharma	Analyst	1003	03-DEC-98	12000
	SATARA	20			

SQL> select emp_name, dept_no from empl where dept_no in (10, 20, 30, 40);

EMP_NAME	DEPT_NO
Nilesh Joshi	20

Avinash Pawar	30
Nikhil Gosavi	30
Nitin Kulkarni	10
Neeraj Sharma	20

SQL> select emp_no, emp_name, job, comm from empl where comm = NULL;

no rows selected

SQL> select emp_no, emp_name, job, comm from empl where comm is NULL;

EMP_NO	EMP_NAME	JOB	COMM
1003	Nikhil Gosavi	Manager	
1004	Nitin Kulkarni	President	
1005	Neeraj Sharma	Analyst	

SQL> select emp_name, salary from empl where salary not in (5000, 10000);

EMP_NAME	SALARY
Nilesh Joshi	28000
Nikhil Gosavi	2000
Nitin Kulkarni	50000
Neeraj Sharma	12000

SQL> select emp_name, join_date from empl where emp_name Like 'A%';

EMP_NAME	JOIN_DATE
Avinash Pawar	25-FEB-96

SQL> select emp_name from empl where emp_name Like '_i%';

EMP_NAME
Nilesh Joshi
Nikhil Gosavi
Nitin Kulkarni

SQL> select emp_no, emp_name from empl where comm is not NULL;

EMP_NO	EMP_NAME
1001	Nilesh Joshi
1002	Avinash Pawar

SQL> select * from empl order by emp_no desc;

EMP_NO	EMP_NAME	JOB	MGR	JOIN_DATE	SALARY
--------	----------	-----	-----	-----------	--------

COMM ADDRESS	DEPT_NO			
1005 Neeraj Sharma	Analyst	1003	03-DEC-98	12000
SATARA 20				
1004 Nitin Kulkarni	President		19-APR-86	50000
Mumbai 10				
1003 Nikhil Gosavi	Manager	1004	02-APR-86	2000
Pune 30				
1002 Avinash Pawar	SalesMan	1003	25-FEB-96	5000
1200 Nagpur 30				
1001 Nilesh Joshi	Clerk	1005	17-DEC-95	28000
600 Nashik 20				

SQL> select min(salary), max(salary), avg(salary), sum(salary) from empl;

MIN(SALARY)	MAX(SALARY)	AVG(SALARY)	SUM(SALARY)
2000	50000	19400	97000

SQL> select min(salary), max(salary), avg(salary), sum(salary) from empl group by job;

MIN(SALARY)	MAX(SALARY)	AVG(SALARY)	SUM(SALARY)
5000	5000	5000	5000
50000	50000	50000	50000
28000	28000	28000	28000
2000	2000	2000	2000
12000	12000	12000	12000

SQL> select min(salary), max(salary), avg(salary), sum(salary), job from empl group by job;

MIN(SALARY)	MAX(SALARY)	AVG(SALARY)	SUM(SALARY)	JOB
5000	5000	5000	5000	SalesMan
50000	50000	50000	50000	President
28000	28000	28000	28000	Clerk
2000	2000	2000	2000	Manager
12000	12000	12000	12000	Analyst

SQL> select count(*) from empl group by dept_no;

COUNT(*)
2
1
2

```
SQL> select dept_no, count(*) from empl group by dept_no;
```

DEPT_NO	COUNT(*)
30	2
10	1
20	2

```
SQL> select emp_no, emp_name, salary*12 from empl order by salary*12;
```

EMP_NO	EMP_NAME	SALARY*12
1003	Nikhil Gosavi	24000
1002	Avinash Pawar	60000
1005	Neeraj Sharma	144000
1001	Nilesh Joshi	336000
1004	Nitin Kulkarni	600000

```
SQL> select dept_no, max(salary) from empl group by dept_no having max(salary)>50000;
```

DEPT_NO	MAX(SALARY)
10	50000
20	28000

```
SQL> select dept_no from empl UNION select dept_no from Depart;
```

DEPT_NO
10
20
30
40

```
SQL> select dept_no from empl UNION ALL select dept_no from Depart;
```

DEPT_NO
20
30
30
10
20
10
20
30
40

9 rows selected.

```
SQL> select dept_no from empl INTERSECT select dept_no from Depart;
```

DEPT_NO
10
20
30

```
SQL> select dept_no from empl MINUS select dept_no from Depart;
```

no rows selected

```
SQL> select count(*) from empl where dept_no = 30 AND comm is not NULL;
```

COUNT(*)
1