

```

begin
    p1;
end;
/
-----
declare
    num number;
begin
    num:=&num;
    p2(num);
end;
/
-----
declare
    cursor c1(mon number,pdays number) is select * from attendance
    where month=mon and days>=pdays;
    attdata c1%rowtype;
begin
    open c1(12,20);
    loop
        fetch c1 into attdata;
        exit when c1%notfound;
        dbms_output.put_line('Id ' || attdata.id);
        dbms_output.put_line('Month ' || attdata.month);
        dbms_output.put_line('Days ' || attdata.days);
        dbms_output.put_line('-----');
    end loop;

    close c1;
end;
/
-----
declare
    cursor c1 is select * from customers;
begin
    for cur in c1
    loop
        dbms_output.put_line('Name ' || cur.cname);
        dbms_output.put_line('Amount ' || cur.amount);
        dbms_output.put_line('-----');
    end loop;
end;
/
-----
create or replace procedure p1
as
begin
    dbms_output.put_line('This is a procedure. Similar to functions in other
languages');
end;

```

```

/
-----
create or replace procedure p2(no in number)
as
    sq number;
begin
    sq:=no*no;
    dbms_output.put_line('Square is ' || sq);
end;
/
-----
create or replace procedure p3(a number,b number,c out number)
as
begin
    c:=a+b;
end;
/
-----
declare
    x number;
    y number;
    z number;
begin
    x:=&x;
    y:=&y;
    p3(x,y,z);
    dbms_output.put_line('Sum is ' || z);
end;
/
-----
create or replace procedure p4(dno number,name out varchar)
as
    custdata customers%rowtype;
    dt date;
begin
    select min(doj) into dt from customers where dept=dno;
    select cname into name from customers where doj=dt;

end;
/
-----
declare
    dno number;
    nm varchar(10);
begin
    dno:=&dno;
    p4(dno,nm);
    dbms_output.put_line(nm);
end;

```

/

```
=====
                          Procedure / PL / SQL
=====
```

SQL\*Plus: Release 10.2.0.1.0 - Production on Sat Dec 13 08:48:12 2025

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SQL> connect

Enter user-name: prince

Enter password:

Connected.

SQL> create table attendance(id number, month number,days number);

Table created.

SQL> insert into attendance values(1,12,20);

1 row created.

SQL> insert into attendance values(2,12,23);

1 row created.

SQL> insert into attendance values(3,12,3);

1 row created.

SQL> insert into attendance values(4,12,29);

1 row created.

SQL> insert into attendance values(5,11,18);

1 row created.

SQL> insert into attendance values(6,11,24);

1 row created.

SQL> commit;

Commit complete.

SQL> set serveroutput on

SQL> select \* from attendance;

ID	MONTH	DAYS
1	12	20
2	12	23
3	12	3
4	12	29
5	11	18
6	11	24

6 rows selected.

SQL> ed c:/oracle/cur12.sql

SQL> @ c:/oracle/cur12.sql

Id 4

Month 12

Days 29

-----

PL/SQL procedure successfully completed.

SQL> ed c:/oracle/cur12.sql

SQL> @ c:/oracle/cur12.sql

Id 1

Month 12

Days 20

-----

Id 2

Month 12

Days 23

-----

Id 4

Month 12

Days 29

-----

PL/SQL procedure successfully completed.

SQL> ed c:/oracle/cur12.sql

SQL> ed c:/oracle/cur13.sql

SQL> select \* from customers;

CNO	CNAME	AMOUNT	DOJ	CONTACT	DEPT	CITY
1	Ravi	495	10-APR-20	9983	10	Indore
2	Sumit	715	13-APR-20	8832	20	Sagar
3	Ajay	165	30-SEP-22		10	Sagar

4 Vijay	935	15-FEB-23	30 Indore
5 Sanjay	385	10-APR-20	10 Indore
6 Gourav	55	03-NOV-25	20 Sagar
7 Sourav	120	06-NOV-25	10 Sagar
8 Raja	230	04-OCT-25	20 Bhopal
9 Rani	260	16-MAY-23	30 Bhopal
10 Gaurav	300	15-NOV-25	40 Gwalior
		3394	

10 rows selected.

SQL> ed c:/oracle/cur13.sql

SQL> @ c:/oracle/cur13.sql

Name Ravi

Amount 495

-----  
Name Sumit

Amount 715

-----  
Name Ajay

Amount 165

-----  
Name Vijay

Amount 935

-----  
Name Sanjay

Amount 385

-----  
Name Gourav

Amount 55

-----  
Name Sourav

Amount 120

-----  
Name Raja

Amount 230

-----  
Name Rani

Amount 260

-----  
Name Gaurav

Amount 300

PL/SQL procedure successfully completed.

SQL> ed c:/oracle/cur13.sql

SQL> ed c:/oracle/cur13.sql

```
SQL> ed c:/oracle/proc1.sql
```

```
SQL> @ c:/oracle/proc1.sql
```

Procedure created.

```
SQL> ed c:/oracle/proc1.sql
```

```
SQL> exec p1;
```

This is a procedure. Similar to functions

PL/SQL procedure successfully completed.

```
SQL> ed c:/oracle/proc1.sql
```

```
SQL> exec p1;
```

This is a procedure. Similar to functions

PL/SQL procedure successfully completed.

```
SQL> @ c:/oracle/proc1.sql
```

```
create procedure p1
```

```
*
```

ERROR at line 1:

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

```
SQL> ed c:/oracle/proc1.sql
```

```
SQL> @ c:/oracle/proc1.sql
```

Procedure created.

```
SQL> exec p1
```

This is a procedure. Similar to functions in other languages

PL/SQL procedure successfully completed.

```
SQL> ed c:/oracle/proc1.sql
```

```
SQL> ed c:/oracle/callproc1.sql
```

```
SQL> @ c:/oracle/callproc1.sql
```

This is a procedure. Similar to functions in other languages

PL/SQL procedure successfully completed.

```
SQL> exec p1;
```

This is a procedure. Similar to functions in other languages

PL/SQL procedure successfully completed.

SQL> ed c:/oracle/callproc1.sql

SQL> ed c:/oracle/proc2.sql

SQL> @ c:/oracle/proc2.sql

Procedure created.

SQL> exec p2(4);

Square is 16

PL/SQL procedure successfully completed.

SQL> ed c:/oracle/proc2.sql

SQL> @ c:/oracle/proc2.sql

Procedure created.

SQL> exec p2(4);

Square is 16

PL/SQL procedure successfully completed.

SQL> ed c:/oracle/proc2.sql

SQL> ed c:/oracle/callproc2.sql

SQL> @ c:/oracle/callproc2.sql

Enter value for num: 8

old 4: num:=&num;

new 4: num:=8;

Square is 64

PL/SQL procedure successfully completed.

SQL> ed c:/oracle/callproc2.sql

SQL> ed c:/oracle/proc2.sql

SQL> ed c:/oracle/callproc1.sql

SQL> ed c:/oracle/callproc2.sql

SQL> ed c:/oracle/proc2.sql

SQL> ed c:/oracle/callproc2.sql

```
SQL> ed c:/oracle/proc3.sql
```

```
SQL> @ c:/oracle/proc3.sql
```

```
Procedure created.
```

```
SQL> ed c:/oracle/proc3.sql
```

```
SQL> @ c:/oracle/proc3.sql
```

```
Procedure created.
```

```
SQL> exec p3(10,20);  
BEGIN p3(10,20); END;
```

```
*
```

```
ERROR at line 1:  
ORA-06550: line 1, column 7:  
PLS-00306: wrong number or types of arguments in call to 'P3'  
ORA-06550: line 1, column 7:  
PL/SQL: Statement ignored
```

```
SQL> exec p3(10,20,50);  
BEGIN p3(10,20,50); END;
```

```
*
```

```
ERROR at line 1:  
ORA-06550: line 1, column 16:  
PLS-00363: expression '50' cannot be used as an assignment target  
ORA-06550: line 1, column 7:  
PL/SQL: Statement ignored
```

```
SQL> @ c:/oracle/proc3call.sql  
SP2-0310: unable to open file "c:/oracle/proc3call.sql"  
SQL> ed c:/oracle/proc3call.sql
```

```
SQL> @ c:/oracle/proc3call.sql  
Enter value for x: 10  
old 6: x:=&x;  
new 6: x:=10;  
Enter value for y: 20  
old 7: y:=&y;  
new 7: y:=20;  
Sum is 30
```

```
PL/SQL procedure successfully completed.
```

```
SQL> ed c:/oracle/proc3call.sql
```



```
SQL> ed c:/oracle/proc3.sql
```

```
SQL> ed c:/oracle/proc3call.sql
```

```
SQL> select * from customers;
```

CNO	CNAME	AMOUNT	DOJ	CONTACT	DEPT	CITY
1	Ravi	495	10-APR-20	9983	10	Indore
2	Sumit	715	13-APR-20	8832	20	Sagar
3	Ajay	165	30-SEP-22		10	Sagar
4	Vijay	935	15-FEB-23		30	Indore
5	Sanjay	385	10-APR-20		10	Indore
6	Gourav	55	03-NOV-25		20	Sagar
7	Sourav	120	06-NOV-25		10	Sagar
8	Raja	230	04-OCT-25		20	Bhopal
9	Rani	260	16-MAY-23		30	Bhopal
10	Gaurav	300	15-NOV-25	3394	40	Gwalior

```
10 rows selected.
```

```
SQL> ed c:/oracle/proc4.sql
```

```
SQL> select cname,min(doj) from customers where dept=10 group by doj;  
select cname,min(doj) from customers where dept=10 group by doj  
*
```

```
ERROR at line 1:
```

```
ORA-00979: not a GROUP BY expression
```

```
SQL> select cname,min(doj) from customers where dept=10 group by cname;
```

CNAME	MIN(DOJ)
Ajay	30-SEP-22
Sourav	06-NOV-25
Ravi	10-APR-20
Sanjay	10-APR-20

```
SQL> ed c:/oracle/proc4.sql
```

```
SQL> select min(doj) from customers where dept=10;
```

```
MIN(DOJ)  
-----  
10-APR-20
```

```
SQL> ed c:/oracle/proc4.sql
```

```
SQL>
SQL> @ c:/oracle/proc4.sql
```

Procedure created.

```
SQL> ed c:/oracle/proc4call.sql
```

```
SQL> @ c:/oracle/proc4call.sql
```

Enter value for dno: 10

old 5: dno:=&dno;

new 5: dno:=10;

declare

\*

ERROR at line 1:

ORA-01422: exact fetch returns more than requested number of rows

ORA-06512: at "PRINCE.P4", line 7

ORA-06512: at line 6

```
SQL> @ c:/oracle/proc4call.sql
```

Enter value for dno: 20

old 5: dno:=&dno;

new 5: dno:=20;

Sumit

PL/SQL procedure successfully completed.

```
SQL> @ c:/oracle/proc4call.sql
```

Enter value for dno: 30

old 5: dno:=&dno;

new 5: dno:=30;

Vijay

PL/SQL procedure successfully completed.

```
SQL> select * from customers;
```

CNO	CNAME	AMOUNT	DOJ	CONTACT	DEPT	CITY
1	Ravi	495	10-APR-20	9983	10	Indore
2	Sumit	715	13-APR-20	8832	20	Sagar
3	Ajay	165	30-SEP-22		10	Sagar
4	Vijay	935	15-FEB-23		30	Indore
5	Sanjay	385	10-APR-20		10	Indore
6	Gourav	55	03-NOV-25		20	Sagar
7	Sourav	120	06-NOV-25		10	Sagar
8	Raja	230	04-OCT-25		20	Bhopal
9	Rani	260	16-MAY-23		30	Bhopal
10	Gaurav	300	15-NOV-25	3394	40	Gwalior

10 rows selected.

SQL> select \* from customers where dept=20;

CNO	CNAME	AMOUNT	DOJ	CONTACT	DEPT	CITY
2	Sumit	715	13-APR-20	8832	20	Sagar
6	Gourav	55	03-NOV-25		20	Sagar
8	Raja	230	04-OCT-25		20	Bhopal

SQL> @ c:/oracle/proc4call.sql

Enter value for dno: 30

old 5: dno:=&dno;

new 5: dno:=30;

Vijay

PL/SQL procedure successfully completed.

SQL> @ c:/oracle/proc4call.sql

Enter value for dno: 20

old 5: dno:=&dno;

new 5: dno:=20;

Sumit

PL/SQL procedure successfully completed.

SQL> select \* from customers where dept=30;

CNO	CNAME	AMOUNT	DOJ	CONTACT	DEPT	CITY
4	Vijay	935	15-FEB-23		30	Indore
9	Rani	260	16-MAY-23		30	Bhopal

SQL> @ c:/oracle/proc4call.sql

Enter value for dno: 10

old 5: dno:=&dno;

new 5: dno:=10;

declare

\*

ERROR at line 1:

ORA-01422: exact fetch returns more than requested number of rows

ORA-06512: at "PRINCE.P4", line 7

ORA-06512: at line 6

SQL> ed c:/oracle/proc4.sql

SQL> select min(doj) from customers where dept=20;

MIN(DOJ)

-----  
13-APR-20

SQL> ed c:/oracle/proc4.sql

SQL> ed c:/oracle/proc4call.sql

SQL>