**Cursor**

declare

cursor c1 is

select empno,ename,sal from emp where job='MANAGER';

eid emp.empno%type;

name emp.ename%type;

s emp.sal%type;

begin

open c1;

loop

fetch c1 into eid,name,s ;

exit when c1%notfound;

dbms\_output.put\_line('Empno of Employee:-'||eid);

dbms\_output.put\_line('Name of Employee:-'||name);

dbms\_output.put\_line('Salary of Employee:-'||s);

dbms\_output.put\_line('----------------------------------');

end loop;

close c1;

end;

declare

cursor c1 is

select empno,ename,sal from emp where job='MANAGER';

eid emp.empno%type;

name emp.ename%type;

s emp.sal%type;

cnt number:=1;

begin

open c1;

loop

fetch c1 into eid,name,s ;

exit when cnt>c1%rowcount;

dbms\_output.put\_line('Empno of Employee:-'||eid);

dbms\_output.put\_line('Name of Employee:-'||name);

dbms\_output.put\_line('Salary of Employee:-'||s);

dbms\_output.put\_line('----------------------------------');

cnt:=cnt+1;

end loop;

close c1;

end;

declare

cursor c1 is

select empno,ename,sal from emp where job='MANAGER';

emp\_rec c1%rowtype;

begin

for emp\_rec in c1 loop

dbms\_output.put\_line('Empno of Employee:-'||emp\_rec.empno);

dbms\_output.put\_line('Name of Employee:-'||emp\_rec.ename);

dbms\_output.put\_line('Salary of Employee:-'||emp\_rec.sal);

dbms\_output.put\_line('----------------------------------');

end loop;

close c1;

end;

**cursor with rowtype**

declare

cursor c1 is

select empno,ename,sal from emp where job='MANAGER';

emp\_rec c1%rowtype;

begin

open c1;

loop

fetch c1 into emp\_rec;

exit when c1%notfound;

dbms\_output.put\_line('Empno of Employee:-'||emp\_rec.empno);

dbms\_output.put\_line('Name of Employee:-'||emp\_rec.ename);

dbms\_output.put\_line('Salary of Employee:-'||emp\_rec.sal);

dbms\_output.put\_line('----------------------------------');

end loop;

close c1;

end;

**cursor with for loop**

declare

cursor c1 is select empno,ename ,sal from emp where deptno=10;

begin

for e in c1 loop

dbms\_output.put\_line(e.empno);

dbms\_output.put\_line(e.ename);

dbms\_output.put\_line(e.sal);

end loop;

end;

**cursor with subquery**

begin

for e in (select empno,ename ,sal from emp where deptno=10) loop

dbms\_output.put\_line(e.empno);

dbms\_output.put\_line(e.ename);

dbms\_output.put\_line(e.sal);

end loop;

end;

**cursor with parameters:**

declare

cursor c1 ( j varchar2 )is

select empno,ename,sal from emp where job=j;

emp\_rec c1%rowtype;

begin

open c1 (‘MANAGER’);

loop

fetch c1 into emp\_rec;

exit when c1%notfound;

dbms\_output.put\_line('Empno of Employee:-'||emp\_rec.empno);

dbms\_output.put\_line('Name of Employee:-'||emp\_rec.ename);

dbms\_output.put\_line('Salary of Employee:-'||emp\_rec.sal);

dbms\_output.put\_line('----------------------------------');

end loop;

close c1;

open c1 (‘SALESMAN’);

loop

fetch c1 into emp\_rec;

exit when c1%notfound;

dbms\_output.put\_line('Empno of Employee:-'||emp\_rec.empno);

dbms\_output.put\_line('Name of Employee:-'||emp\_rec.ename);

dbms\_output.put\_line('Salary of Employee:-'||emp\_rec.sal);

dbms\_output.put\_line('----------------------------------');

end loop;

close c1;

end;

**Function and procedure:**

declare

eid number(4);

name varchar2(20);

begin

select ename into name from emp

WHERE empno =&eid;

IF SQL%notfound then

RAISE\_APPLICATION\_ERROR(-20202,

'This is not a valid employee');

END IF;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

RAISE\_APPLICATION\_ERROR (-20201,name||' is not a valid employee.');

END;

create or replace procedure pr1

as

begin

dbms\_output.put\_line('hello');

end pr1;

create or replace procedure pr1

is

name emp.ename%type;

begin

select ename into name from emp where empno=7369;

dbms\_output.put\_line(name);

end pr1;

create or replace procedure pr1

is

a number(4);

b number(4);

c number(4);

begin

a:=&a;

b:=&b;

c:=a\*b;

dbms\_output.put\_line('Sum='||c);

dbms\_output.put\_line('hello');

end pr1;

CREATE OR REPLACE PROCEDURE raise\_salary

(p\_id IN emp.deptno%TYPE)

IS

BEGIN

UPDATE emp

SET sal = sal \* 1.10

WHERE deptno = p\_id;

END raise\_salary;

exec raise\_salary(30);

CREATE OR REPLACE PROCEDURE query\_emp

(p\_id IN emp.empno%TYPE,

p\_name OUT emp.ename%TYPE,

p\_salary OUT emp.sal%TYPE,

p\_comm OUT emp.comm%TYPE)

IS

BEGIN

SELECT ename, sal, comm

INTO p\_name, p\_salary, p\_comm

FROM emp

WHERE empno = p\_id;

END query\_emp;

\*\*\*\*

VARIABLE g\_name VARCHAR2(25)

VARIABLE g\_sal NUMBER

VARIABLE g\_comm NUMBER

EXECUTE query\_emp(7499, :g\_name, :g\_sal, :g\_comm)

PRINT g\_name

print g\_sal

print g\_comm

**Exception Handling**

Declare

Eno number:

Name varchar2(20);

Begin

Eno:=&Eno;

Select ename into name from emp where empno=Eno;

Exception

When no\_data\_found then

Dbms\_output.put\_line(‘no data found’);

End;

declare

a number;

b number;

c number;

begin

a:=&a;

b:=&b;

c:=a/b;

dbms\_output.put\_line(c);

exception

when zero\_divide then

dbms\_output.put\_line('aa');

when others then

dbms\_output.put\_line('s');

end;

/

Declare

Eno number;

Name varchar2(20);

Pk\_empno exception;

Pragma exception\_init(pk\_empno,-00001);

Begin

Name:=&Name;

Eno:=&Eno;

Insert into emp(empno,ename)

Values (eno,name);

Commit;

Exception

When pk\_empno then

Dbms\_output.put\_line('uplicate data');

end;

Declare

Eno number;

Name varchar2(20);

Pk\_empno exception;

Pragma exception\_init(pk\_empno,-00001);

Begin

Name:=&Name;

Eno:=&Eno;

Insert into emp(empno,ename)

Values (eno,name);

Commit;

Exception

When pk\_empno then

Dbms\_output.put\_line('uplicate data');

dbms\_output.put\_line(sqlerrm);

dbms\_output.put\_line(sqlcode);

end;

declare

eid number(4);

c number(4);

null\_comm exception;

begin

select comm into c from emp

WHERE empno =&eid;

IF c is null then

raise null\_comm;

END IF;

EXCEPTION

WHEN null\_comm THEN

dbms\_output.put\_line('no commission ');

when others then

dbms\_output.put\_line(sqlerrm);

END;