**Record :**

**Program 1 :**

declare

type emp\_type\_rec is record (

emp\_id number,

emp\_name varchar(30),

emp\_salary number

);

emp\_rec emp\_type\_rec;

begin

select empname,empsal into emp\_rec.emp\_name,emp\_rec.emp\_salary from employee39810 where empid=122;

dbms\_output.put\_line('Name is' || emp\_rec.emp\_name);

end;

**O/P :**

Name is Abhi

**Program 2 :**

declare

emp\_rec employee39810%rowtype;

begin

select empname,empsal into emp\_rec.empname,emp\_rec.empsal from employee39810 where empid=39791;

dbms\_output.put\_line('Name is' || emp\_rec.empname);

end;

**O/P:**

Name is SUBRAMANYAM

**Cursor :**

**Program 3:**

begin

delete from employee39810 where empid=122;

if sql%found then

dbms\_output.put\_line('Record Deleted Succesfully');

else

dbms\_output.put\_line('Record Not Present');

end if;

end;

**O/P:**

Record Deleted Succesfully

**Program 4 :**

begin

update employee39810 set empname='Benny',empdesg='tester',empsal=25000 where empid=2;

dbms\_output.put\_line('Records Affected : '|| sql%rowcount);

end;

**O/P:**

Records Affected : 1

**Program 5 :**

begin

update employee39810 set empname='Benny',empdesg='tester',empsal=25000 where empid=2;

-- dbms\_output.put\_line('Records Affected : '|| sql%rowcount);

if sql%isopen then

dbms\_output.put\_line('Cursor is open');

else

dbms\_output.put\_line('Cursor is Closed');

end if;

end;

**O/P:**

Cursor is Closed

**Explicit Cursor**

**Program 6 :**

declare

cursor mycur is select \* from employee39810;

begin

dbms\_output.put\_line('Cursor Created');

if mycur%isopen then

dbms\_output.put\_line('Cursor is open');

else

dbms\_output.put\_line('Cursor is Closed');

end if;

end;

**O/P:**

Cursor Created

Cursor is Closed

**Program 7 :**

declare

cursor mycur is select \* from employee39810;

begin

dbms\_output.put\_line('Cursor Created');

open mycur;

if mycur%isopen then

dbms\_output.put\_line('Cursor is open');

else

dbms\_output.put\_line('Cursor is Closed');

end if;

end;

**O/P:**

Cursor Created

Cursor is Closed

**Program 8 :**

declare

cursor mycur is select \* from employee39810;

begin

dbms\_output.put\_line('Cursor Created');

open mycur;

close mycur;

if mycur%isopen then

dbms\_output.put\_line('Cursor is open');

else

dbms\_output.put\_line('Cursor is Closed');

end if;

end;

**O/P:**

Cursor Created

Cursor is Closed

**Program 9:**

declare

cursor mycur is select \* from employee39810;

emp\_rec employee39810%rowtype;

begin

open mycur;

fetch mycur into emp\_rec;

dbms\_output.put\_line('Id is : '||emp\_rec.empid);

dbms\_output.put\_line('Name is : '||emp\_rec.empname);

dbms\_output.put\_line('Salary is : '||emp\_rec.empsal);

dbms\_output.put\_line('Designation is is : '||emp\_rec.empdesg);

close mycur;

end;

**O/P:**

Id is : 2

Name is : Benny

Salary is : 25000

Designation is is : tester

**Program 10:**

declare

cursor mycur is select \* from employee39810;

emp\_rec employee39810%rowtype;

begin

open mycur;

loop

fetch mycur into emp\_rec;

exit when mycur%NOTFOUND;

dbms\_output.put\_line('Id is : '||emp\_rec.empid);

dbms\_output.put\_line('Name is : '||emp\_rec.empname);

dbms\_output.put\_line('Salary is : '||emp\_rec.empsal);

dbms\_output.put\_line('Designation is is : '||emp\_rec.empdesg);

end loop;

close mycur;

end;

**O/P:**

Id is : 2

Name is : Benny

Salary is : 25000

Designation is is : tester

Id is : 21

Name is : sad

Salary is : 23

Designation is is : as

Id is : 39791

Name is : SUBRAMANYAM

Salary is : 40000

Designation is is : TESTER

Id is : 39792

Name is : ABHINAYA

Salary is : 50000

Designation is is : MANAGER

Id is : 39793

Name is : GOPI KRISHNA

Salary is : 45000

Designation is is : PROGRAMMER

Id is : 39794

Name is : AKSHATA

Salary is : 45000

Designation is is : PROGRAMMER

Id is : 39795

Name is : SUDHARSANAN

Salary is : 40000

Designation is is : TESTER

**Exception :**

**Program 11:**

declare

a number(10) := 10;

res number(10);

begin

res := a/0;

dbms\_output.put\_line('Res is : '||res);

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

exception when others then

dbms\_output.put\_line('Exception Generated');

end;

**O/P:**

Exception Generated

**Program 12:**

declare

a number(10) := 10;

res number(10);

begin

res := a/0;

dbms\_output.put\_line('Res is : '||res);

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

exception when others then

dbms\_output.put\_line('Exception Generated');

dbms\_output.put\_line(sqlcode);

dbms\_output.put\_line(sqlerrm);

end;

**O/P:**

Exception Generated

-1476

ORA-01476: divisor is equal to zero

**Program 13:**

declare

a number(10) := 10;

res number(10);

begin

res := a/0;

dbms\_output.put\_line('Res is : '||res);

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

exception

when zero\_divide then

dbms\_output.put\_line('Zero divided by exception');

when others then

dbms\_output.put\_line('Exception Generated');

dbms\_output.put\_line(sqlcode);

dbms\_output.put\_line(sqlerrm);

end;

**O/P:**

Zero divided by exception

**Program 14:**

declare

ename VARCHAR2(30);

begin

select empname into ename from employee39810;

exception

when zero\_divide then

dbms\_output.put\_line('Zero divided by exception');

when others then

dbms\_output.put\_line('Exception Generated');

dbms\_output.put\_line(sqlcode);

dbms\_output.put\_line(sqlerrm);

end;

**O/P:**

Exception Generated

-1422

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

**Program 15:**

declare

ename VARCHAR2(30);

begin

select empname into ename from employee39810;

exception

when zero\_divide then

dbms\_output.put\_line('Zero divided by exception');

when too\_many\_rows then

dbms\_output.put\_line('Query Retrieves more than 1 row');

when others then

dbms\_output.put\_line('Exception Generated');

dbms\_output.put\_line(sqlcode);

dbms\_output.put\_line(sqlerrm);

end;

**O/P:**

Query Retrieves more than 1 row

**Program 16:**

declare

ename VARCHAR2(30);

begin

insert into employee39810 values('2','Ajay','trainer',10000);

exception

when zero\_divide then

dbms\_output.put\_line('Zero divided by exception');

when too\_many\_rows then

dbms\_output.put\_line('Query Retrieves more than 1 row');

when others then

dbms\_output.put\_line('Exception Generated');

dbms\_output.put\_line(sqlcode);

dbms\_output.put\_line(sqlerrm);

end;

**O/P:**

Exception Generated

-1

ORA-00001: unique constraint (SYSTEM.PK\_ID) violated

**Program 17:**

declare

ename VARCHAR2(30);

dup\_rec\_exception exception;

pragma exception\_init(dup\_rec\_exception,-1);

begin

insert into employee39810 values('2','Ajay','trainer',10000);

exception

when dup\_rec\_exception then

dbms\_output.put\_line('Emp Id must be unique');

when others then

dbms\_output.put\_line('Exception Generated');

dbms\_output.put\_line(sqlcode);

dbms\_output.put\_line(sqlerrm);

end;

**O/P:**

Emp Id must be unique

**Program 18:**

declare

a number := 10;

b number := 7;

my\_custom\_exception exception;

pragma exception\_init(my\_custom\_exception,-20001);

begin

if a>b then

raise my\_custom\_exception;

end if;

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

exception

when my\_custom\_exception then

dbms\_output.put\_line('Exception Generated');

dbms\_output.put\_line(sqlcode);

dbms\_output.put\_line(sqlerrm);

end;

**O/P:**

Exception Generated

-20001

ORA-20001: