Practical 9

Handling Exceptions

**Exceptions:**

An error condition during a program execution is called an exception in PL/SQL.

PL/SQL supports programmers to catch such conditions using EXCEPTION block in the program and an appropriate action is taken against the error condition.

There are two types of exceptions:

* System-defined exceptions
* User-defined exceptions

System-defined exceptions:

System exceptions are automatically raised by Oracle, when a program violates a RDBMS rule. There are some system exceptions which are raised frequently, so they are pre-defined and given a name in Oracle which are known as Named System Exceptions.

User-defined exceptions:

They should be explicitly declared in the declaration section and explicitly raised in the Execution Section.

1. Implement System Defined exception
2. TOO\_MANY\_ROWS and NO\_DATA\_FOUND

declare

s varchar(20);

begin

select empln into s from emp

where deptno=&deptno;

exception

when too\_many\_rows then

dbms\_output.put\_line('fetching more than one record');

when no\_data\_found then

dbms\_output.put\_line('deptno does not exists');

end;

1. CURSOR\_ALREADY\_OPEN

declare

cursor cur is select \* from emp;

begin

open cur;

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

open cur;

exception

when cursor\_already\_open then

dbms\_output.put\_line('already open');

end;

1. ZERO\_DIVIDE

declare

a int:=&a;

b int:=&b;

c int;

begin

c:=a/b;

dbms\_output.put\_line(c);

exception

when zero\_divide then

dbms\_output.put\_line('value of b must be greater than 0');

end;

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1. Handling unnamed system exception – OTHERS

create table demo(sname varchar(5));

BEGIN

INSERT INTO DEMO VALUES('&name');

exception

when others then

dbms\_output.put\_line('buffer is too small');

end;

1. Implement User Defined exception
2. Write a PL/SQL block to raise an exception when an employee name does not start with ‘A’.

DECLARE

a exception;

cursor c1 is select \* from emp;

BEGIN

for rec in c1 loop

dbms\_output.put\_line(rec.empln);

if not rec.empln like 'A%' then

raise a;

end if;

end loop;

exception

when a then

dbms\_output.put\_line('Employee name does not start with A.');

end;

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