

PL/SQL PROGRAMS- PROCEDURES & FUNCTIONS

EXP 11

21BLC1059
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1.CREATE TABLES dept and emp

2.Using cursors and functions display the salary in descending order

SQL> create table dept_21b1c1059(deptno varchar2(6) primary key,deptname varchar2(15),location varchar2(15));

```
SQL> create table dept_21b1c1059(deptno varchar2(6) primary key,deptname varchar2(15),location varchar2(15));
Table created.
```

SQL> create table emp_21b1c1059(empno varchar2(6) primary key,empname varchar2(10), deptno varchar2(6),constraint dept foreign key(deptno) references dept_21b1c1059 (deptno),job varchar2(15),sal number(7,2),comm number(6,2));

```
SQL> create table emp_21b1c1059(empno varchar2(6) primary key,empname varchar2(10), deptno varchar2(6),constraint dept
foreign key(deptno) references dept_21b1c1059 (deptno),job varchar2(15),sal number(7,2),comm number(6,2));
Table created.
```

SQL> desc dept_21b1c1059

```
SQL> desc dept_21b1c1059
Name                               Null?    Type
-----
DEPTNO                             NOT NULL VARCHAR2(6)
DEPTNAME                           VARCHAR2(15)
LOCATION                             VARCHAR2(15)
```

SQL> desc emp_21b1c1059

```
SQL> desc emp_21b1c1059
Name                               Null?    Type
-----
EMPNO                             NOT NULL VARCHAR2(6)
EMPNAME                           VARCHAR2(10)
DEPTNO                             VARCHAR2(6)
JOB                                VARCHAR2(15)
SAL                                NUMBER(7,2)
COMM                               NUMBER(6,2)
```

SQL> insert into dept_21b1c1059 values(1201,'HR','Chennai');

1 row created.

```
SQL> insert into dept_21blc1059 values(1202,'Marketing','Covai');
```

1 row created.

```
SQL> insert into dept_21blc1059 values(1203,'Exporting','Pondicherry');
```

1 row created.

```
SQL> insert into dept_21blc1059 values(1201,'HR','Chennai');
1 row created.
SQL> insert into dept_21blc1059 values(1202,'Marketing','Covai');
1 row created.
SQL> insert into dept_21blc1059 values(1203,'Exporting','Pondicherry');
1 row created.
```

```
SQL> select*from dept_21blc1059;
```

```
SQL> select*from dept_21blc1059;

DEPTNO DEPTNAME      LOCATION
-----
1201    HR              Chennai
1202    Marketing        Covai
1203    Exporting         Pondicherry
```

```
SQL> insert into emp_21blc1059 values(1051,'Harish',1201,'Manager',12500,150);
```

1 row created.

```
SQL> insert into emp_21blc1059 values(1089,'Muzamil',1203,'Chief',10000,120);
```

1 row created.

```
SQL> insert into emp_21blc1059 values(1043,'Ramesh',1203,'Sales rep',9500,100);
```

1 row created.

```
SQL> insert into emp_21blc1059 values(1045,'Guru',1203,'Sales rep',10000,100);
```

1 row created.

```
SQL> insert into emp_21blc1059 values(1090,'Praveen',1202,'Rep',8500,90);
```

1 row created.

SQL> select * from emp_21blc1059;

SQL> select * from emp_21blc1059;

EMPNO	EMPNAME	DEPTNO	JOB	SAL	COMM
1051	Harish	1201	Manager	12500	150
1089	Muzamil	1203	Chief	10000	120
1043	Ramesh	1203	Sales rep	9500	100
1045	Guru	1203	Sales rep	10000	100
1090	Praveen	1202	Rep	8500	90

SQL> create or replace function nsal(n in number) return number as

2 cursor refemp is select sal from emp_21blc1059 order by sal desc;

3 vsal emp_21blc1059.sal%type;

4 begin

5 open refemp;

6 loop

7 fetch refemp into vsal;

8 exit when refemp%rowcount=n;

9 end loop;

10 close refemp;

11 return vsal;

12 end;

13 /

```
SQL> create or replace function nsal(n in number) return number as
  2 cursor refemp is select sal from emp_21blc1059 order by sal desc;
  3 vsal emp_21blc1059.sal%type;
  4 begin
  5 open refemp;
  6 loop
  7 fetch refemp into vsal;
  8 exit when refemp%rowcount=n;
  9 end loop;
 10 close refemp;
 11 return vsal;
 12 end;
 13 /
```

Function created.

SQL> select nsal(2) from dual;

SQL> select nsal(2) from dual;

NSAL(2)
10000

PL/SQL PROGRAMS- TRIGGERS

1.CREATE TABLES accmaster_21blc1059 AND acctrans_21blc1059

2. Using triggers create a pl/sql program that if transtype='d' in acctrans_21blc1059 table then in accmaster_21blc1059 table bal is updated where accno=vaccno;

```
SQL> create table accmaster_21blc1059(accno number(4) primary key,accname varchar2(20),opendate date,acctype char,constraint ck_type check(acctype in('c','s','r')),bal number(9,2));
```

```
SQL> create table accmaster_21blc1059(accno number(4) primary key,accname varchar2(20),opendate date,acctype char,constraint ck_type check(acctype in('c','s','r')),bal number(9,2));
Table created.
```

```
SQL> create table acctrans_21blc1059(transno number(8) primary key,accno number(4),constraint acc foreign key(accno) references accmaster_21blc1059(accno),transdate date,transamt number(9,2),transtype char,constraint chk_trans check(transtype in('d','w')));
```

```
SQL> create table acctrans_21blc1059(transno number(8) primary key,accno number(4),constraint acc foreign key(accno) references accmaster_21blc1059(accno),transdate date,transamt number(9,2),transtype char,constraint chk_trans check(transtype in('d','w')));
Table created.
```

```
SQL> insert into accmaster_21blc1059 values(1001,'HarisH','25-mar-2000','s',1000);
```

1 row created.

```
SQL>insert into accmaster_21blc1059 values(1002,'Muzamil','31-may-2000','r',1500);
```

1 row created.

```
SQL> insert into accmaster_21blc1059 values(1003,'Subash','12-apr-2000','s',1750);
```

1 row created.

```
SQL> select*from accmaster_21blc1059;
```

```
SQL> select*from accmaster_21blc1059;
```

ACCNO	ACCNAME	OPENDATE	A	BAL
1001	Harish	25-MAR-00	s	1000
1002	Muzamil	31-MAY-00	r	1500
1003	Subash	12-APR-00	s	1750

```
SQL> create or replace trigger acc_update
```

```
2 after insert on acctrans_21blc1059
```

```
3 for each row
```

```
4 declare
```

```
5 vaccno acctrans_21blc1059.accno%type;
```

```
6 vtransamt acctrans_21blc1059.transamt%type;
```

```
7 vtranstype acctrans_21blc1059.transtype%type;
```

```
8 begin
```

```
9 vaccno:=:new.accno;
```

```
10 vtransamt:=:new.transamt;
```

```
11 vtranstype:=:new.transtype;
```

```
12 if vtranstype='d' then
```

```
13 update accmaster_21blc1059 set bal=bal+vtransamt where accno=vaccno;
```

```
14 elsif vtranstype='w' then
```

```
15 update accmaster_21blc1059 set bal=bal-vtransamt where accno=vaccno;
```

```
16 end if;
```

```
17 end;
```

```
18 /
```

```
SQL> create or replace trigger acc_update
```

```
2 after insert on acctrans_21blc1059
```

```
3 for each row
```

```
4 declare
```

```
5 vaccno acctrans_21blc1059.accno%type;
```

```
6 vtransamt acctrans_21blc1059.transamt%type;
```

```
7 vtranstype acctrans_21blc1059.transtype%type;
```

```
8 begin
```

```
9 vaccno:=:new.accno;
```

```
10 vtransamt:=:new.transamt;
```

```
11 vtranstype:=:new.transtype;
```

```
12 if vtranstype='d' then
```

```
13 update accmaster_21blc1059 set bal=bal+vtransamt where accno=vaccno;
```

```
14 elsif vtranstype='w' then
```

```
15 update accmaster_21blc1059 set bal=bal-vtransamt where accno=vaccno;
```

```
16 end if;
```

```
17 end;
```

```
18 /
```

```
Trigger created.
```

```
SQL> insert into acctrans_21blc1059 values(500234,1001,'30-mar-2000',1000,'d');
```

1 row created.

```
SQL> insert into acctrans_21blc1059 values(500238,1002,'17-apr-2010',300,'w');
```

1 row created.

```
SQL> insert into acctrans_21blc1059 values(500236,1003,'31-mar-2010',50,'d');
```

1 row created.

```
SQL> select*from acctrans_21blc1059;
```

```
SQL> select*from acctrans_21blc1059;
```

TRANSNO	ACCNO	TRANSDATE	TRANSAMT	T
500234	1001	30-MAR-00	1000	d
500238	1002	17-APR-10	300	w
500236	1003	31-MAR-10	50	d

```
SQL> select*from accmaster_21blc1059;
```

```
SQL> select*from accmaster_21blc1059;
```

ACCNO	ACCNAME	OPENDATE	A	BAL
1001	Harish	25-MAR-00	s	2000
1002	Muzamil	31-MAY-00	r	1200
1003	Subash	12-APR-00	s	1800