**Lab7**

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CSE A

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**1.**CREATE TABLE salary\_raise(

Instructor\_ID NUMBER(5),

Raise\_Date DATE,

Raise\_Amt NUMERIC(8,2)

);

DECLARE

CURSOR c1 IS

SELECT \* FROM Instructor WHERE dept\_name = 'History' FOR UPDATE;

r\_amt NUMERIC(8, 2);

BEGIN

FOR d IN c1

LOOP

r\_amt := d.salary \* 0.05;

UPDATE Instructor

SET salary = salary \* 1.05 where current of c1;

INSERT INTO salary\_raise VALUES (d.ID, CURRENT\_DATE, r\_amt);

END LOOP;

END;

/

**2.**

declare

cursor c1 is select \* from student order by tot\_cred;

temp student%ROWTYPE;

begin

open c1;

loop

FETCH c1 into temp;

exit when c1%ROWCOUNT>10;

dbms\_output.put\_line(temp.id||' '||temp.name||' '||temp.dept\_name||' '||temp.tot\_cred);

end loop;

close c1;

end;

/

**3.**

CREATE TABLE h1

AS (select \* from (((section natural join course) natural join department) natural join instructor));

Declare

CURSOR C1 is select \* from h1;

r h1%ROWTYPE;

tot\_stud\_count number := 0;

BEGIN

OPEN C1;

LOOP

FETCH c1 into r;

EXIT WHEN C1%NOTFOUND;

dbms\_output.put\_line('COURSE\_ID '||r.course\_id);

dbms\_output.put\_line('TITLE '||r.title);

dbms\_output.put\_line('DEPT\_NAME '||r.DEPT\_NAME);

dbms\_output.put\_line('Credits '||r.credits);

dbms\_output.put\_line('instructor\_name '||r.name);

dbms\_output.put\_line('building '||r.building);

dbms\_output.put\_line('time\_slot\_id '||r.time\_slot\_id);

SELECT count(r.course\_id) into tot\_stud\_count from takes where course\_id = r.course\_id;

DBMS\_OUTPUT.PUT\_LINE( 'Total Students in Course: '||tot\_stud\_count);

DBMS\_OUTPUT.PUT\_LINE( '-----------------------------------');

END LOOP;

CLOSE c1;

END;

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**4.**

declare

cursor c is select \* from Student natural join takes where course\_id='CS-101' ;

begin

for stud in c

loop

if stud.tot\_cred < 30 then

delete from takes where id=stud.id and course\_id='CS-101';

end if;

end loop;

end;

/

**5.**

DECLARE

CURSOR C1 is select \* from studenttable for update;

BEGIN

For stud in C1

LOOP

IF stud.GPA < 4 AND stud.GPA>0 THEN

update studenttable SET lettergrade = 'F' where current of C1;

ELSIF stud.GPA < 5 AND stud.GPA>4 THEN

update studenttable SET lettergrade = 'E' where current of C1;

ELSIF stud.GPA < 6 AND stud.GPA>5 THEN

update studenttable SET lettergrade = 'D' where current of C1;

ELSIF stud.GPA < 7 AND stud.GPA>6 THEN

update studenttable SET lettergrade = 'C' where current of C1;

ELSIF stud.GPA < 8 AND stud.GPA>7 THEN

update studenttable SET lettergrade = 'B' where current of C1;

ELSIF stud.GPA < 9 AND stud.GPA>8 THEN

update studenttable SET lettergrade = 'A' where current of C1;

ELSIF stud.GPA < 10 AND stud.GPA>9 THEN

update studenttable SET lettergrade = 'A+' where current of C1;

END IF;

END LOOP;

END;

/

**6.**

DECLARE

CURSOR C1(c\_id teaches.course\_id%TYPE) is select \* from (instructor natural join teaches) where course\_id = c\_id;

tmp teaches.course\_id%type;

BEGIN

tmp:='&courseName';

FOR tr in C1(tmp)

LOOP

DBMS\_OUTPUT.PUT\_LINE(tr.name);

END LOOP;

END;

/

**7.**

declare

cursor c1(a\_id advisor.i\_id%type,c\_id takes.course\_id%type) is select \* from ((student s natural join takes t) inner join advisor a on (id=a.s\_id)) where course\_id = c\_id and a\_id=i\_id;

cursor c2 is select \* from (instructor natural join teaches);

begin

for ins\_info in c2

loop

for info in c1(ins\_info.id,ins\_info.course\_id)

loop

dbms\_output.put\_line(info.name);

end loop;

end loop;

end;

/

**8.**

declare

cursor c1 is select \* from instructor where dept\_name='Biology' for update;

s number(20) := 0;

dept\_budget department.budget%type;

begin

savepoint p1;

for info in c1

loop

s := s + info.salary \* 1.2;

update instructor set salary = 1.2 \* salary where current of c1;

end loop;

select budget into dept\_budget from department where dept\_name='Biology';

if s > dept\_budget then

rollback to p1;

end if;

end;

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