# SQL QUERY FOR 5

## SESSION FROM 5:

### 5.1:

**LIMITATIONS OF IMPLICIT CURSOR:**

* Without a where clause it causes error

DECLARE

v\_salary employee3.salary%TYPE;

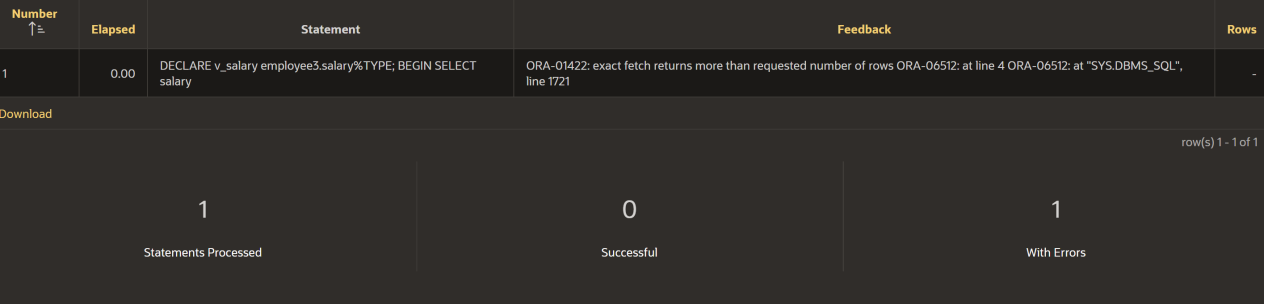
BEGIN

SELECT salary INTO v\_salary

FROM employee3;

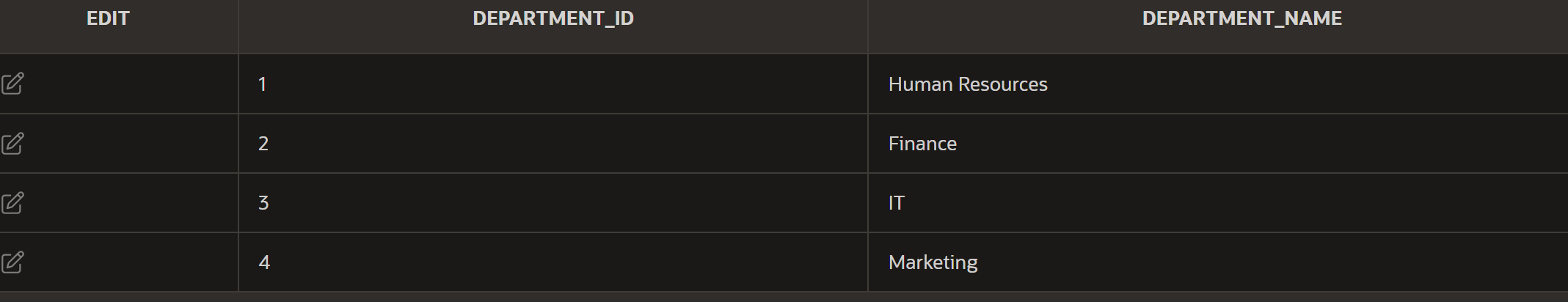
DBMS\_OUTPUT.PUT\_LINE('salary is: '||v\_salary);

END;



* **EXPLICIT CURSOR:**

**TABLE:**



DECLARE

CURSOR cur\_depts IS

SELECT department\_id, department\_name

FROM departments;

v\_department\_id departments.department\_id%TYPE;

v\_department\_name departments.department\_name%TYPE;

BEGIN

OPEN cur\_depts;

LOOP

FETCH cur\_depts INTO v\_department\_id, v\_department\_name;

EXIT WHEN cur\_depts%NOTFOUND;

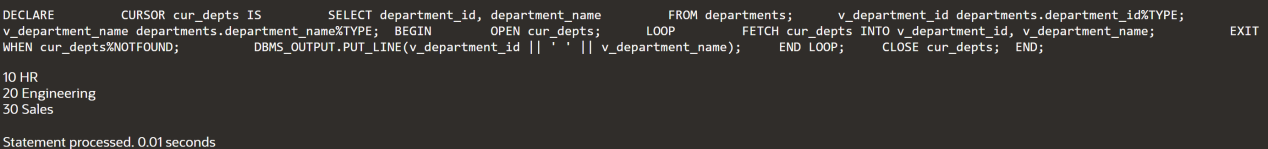
DBMS\_OUTPUT.PUT\_LINE(v\_department\_id || ' ' || v\_department\_name);

END LOOP;

CLOSE cur\_depts;

END;

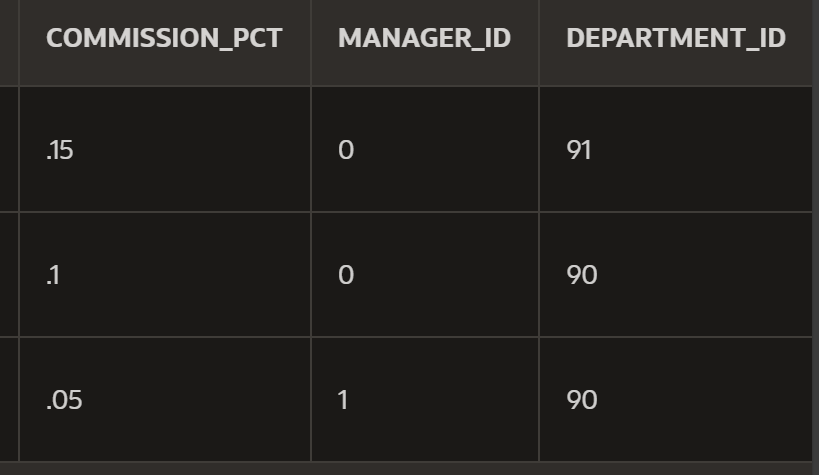
**OUTPUT:**

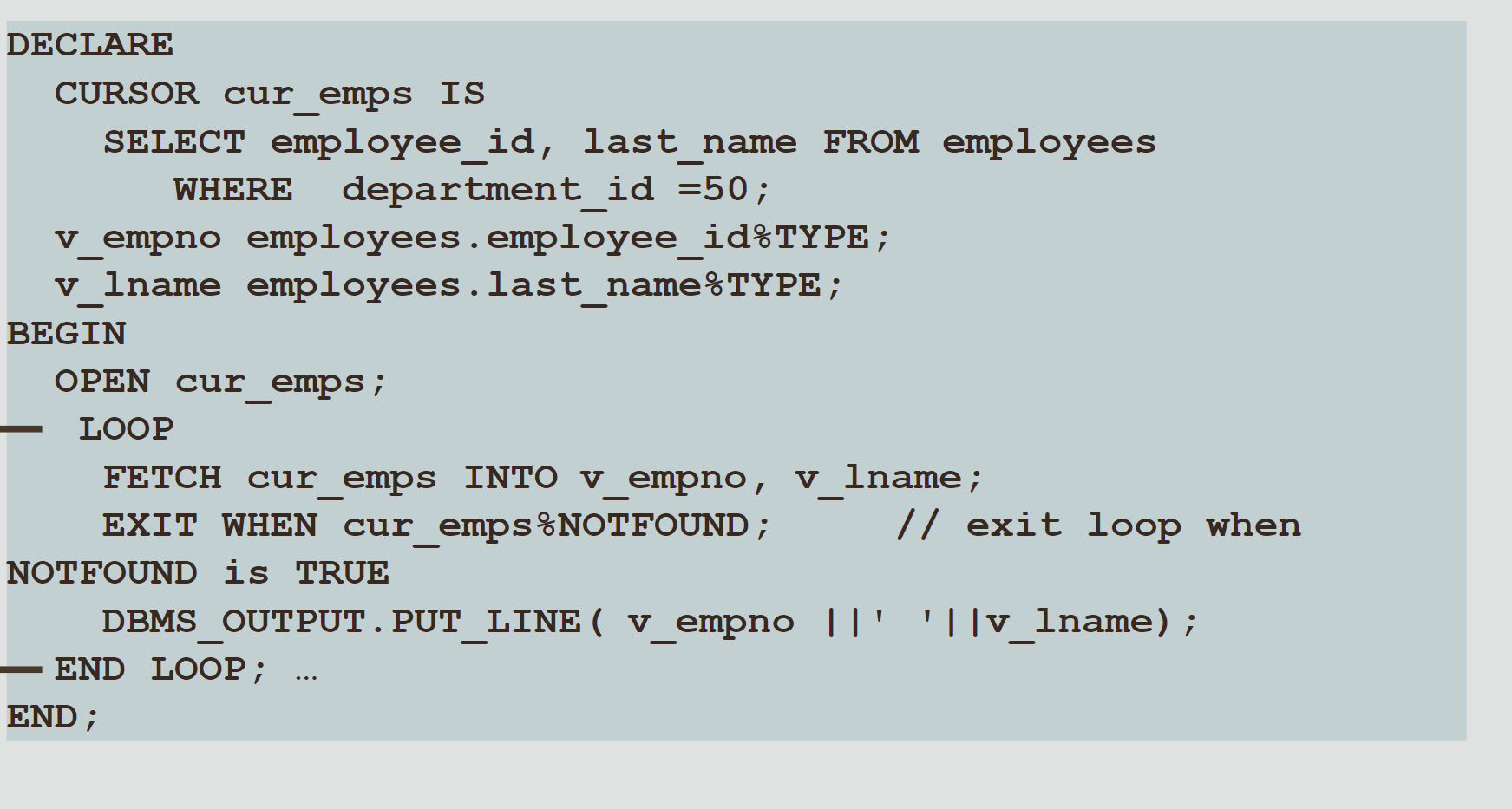


**FETCHING DATA FROM THE CURSOR:**

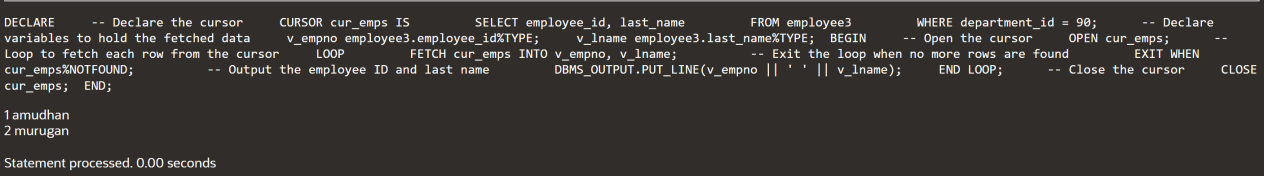
**TABLE:**





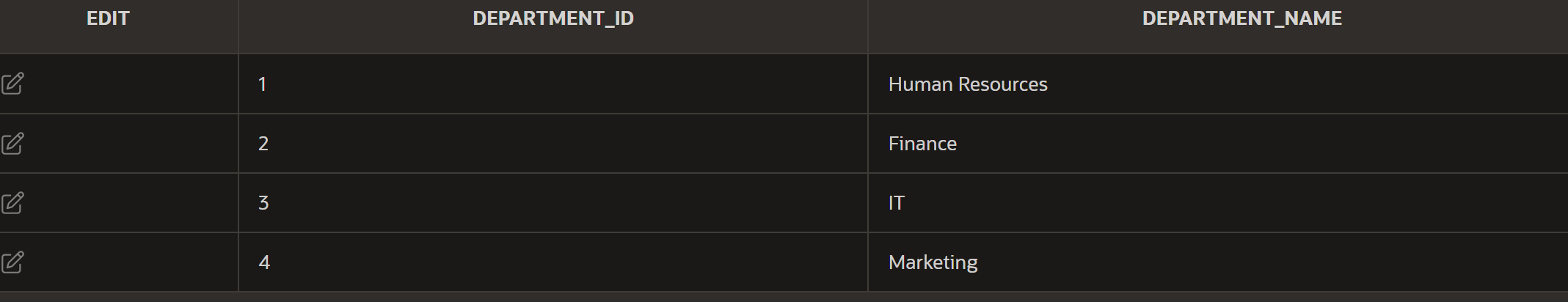


**OUTPUT:**



P**UTTING IT ALL TOGETHER:**

**TABLE:**



DECLARE

CURSOR cur\_depts IS

SELECT department\_id, department\_name

FROM department1;

v\_department\_id department1.department\_id%TYPE;

v\_department\_name department1.department\_name%TYPE;

BEGIN

OPEN cur\_depts;

LOOP

FETCH cur\_depts INTO v\_department\_id, v\_department\_name;

EXIT WHEN cur\_depts%NOTFOUND;

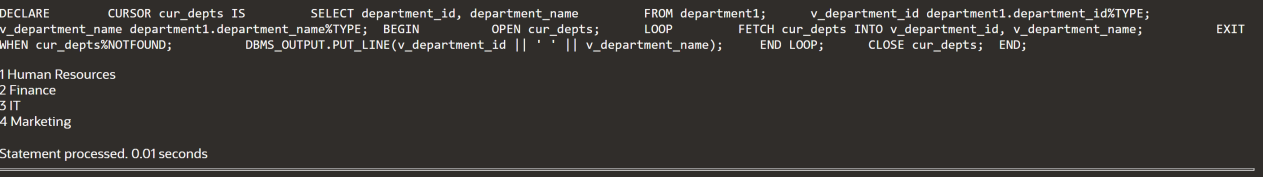
DBMS\_OUTPUT.PUT\_LINE(v\_department\_id || ' ' || v\_department\_name);

END LOOP;

CLOSE cur\_depts;

END;

**OUTPUT:**

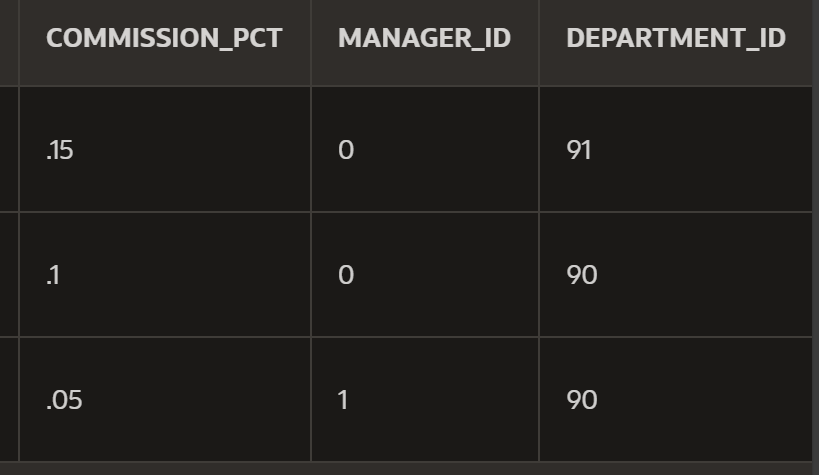


### 5.2:

**CURSOR AND %ROW:**

**TABLE:**





DECLARE

CURSOR cur\_emps IS

SELECT \* FROM employee3 WHERE department\_id = 90;

v\_emp\_record cur\_emps%ROWTYPE;

BEGIN

OPEN cur\_emps;

LOOP

FETCH cur\_emps INTO v\_emp\_record;

EXIT WHEN cur\_emps%NOTFOUND;

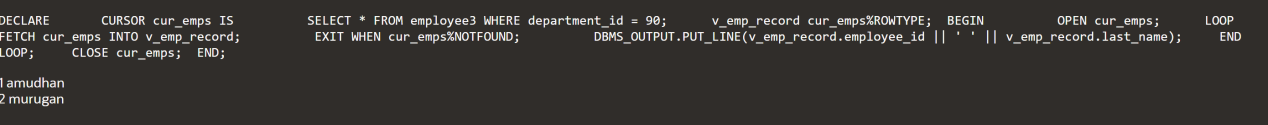
DBMS\_OUTPUT.PUT\_LINE(v\_emp\_record.employee\_id || ' ' || v\_emp\_record.last\_name);

END LOOP;

CLOSE cur\_emps;

END;

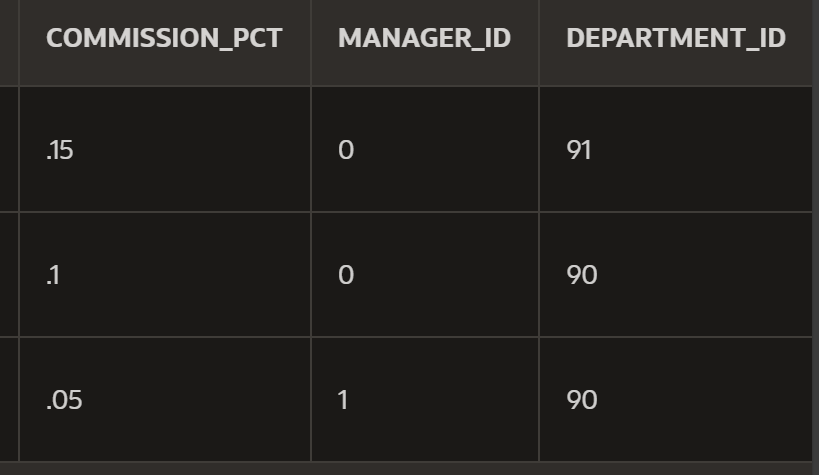
**OUTPUT:**



**%ROWCOUNT AND %NOTFOUND:**

**TABLE:**





DECLARE

CURSOR cur\_emps IS

SELECT employee\_id, last\_name

FROM employees;

v\_emp\_record cur\_emps%ROWTYPE;

BEGIN

OPEN cur\_emps;

LOOP

FETCH cur\_emps INTO v\_emp\_record;

EXIT WHEN cur\_emps%NOTFOUND OR cur\_emps%ROWCOUNT > 10;

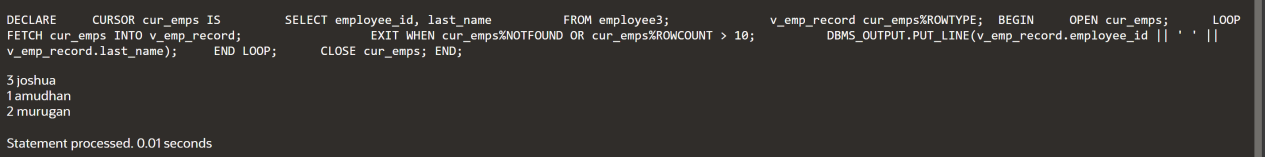
DBMS\_OUTPUT.PUT\_LINE(v\_emp\_record.employee\_id || ' ' || v\_emp\_record.last\_name);

END LOOP;

CLOSE cur\_emps;

END;

**OUTPUT:**

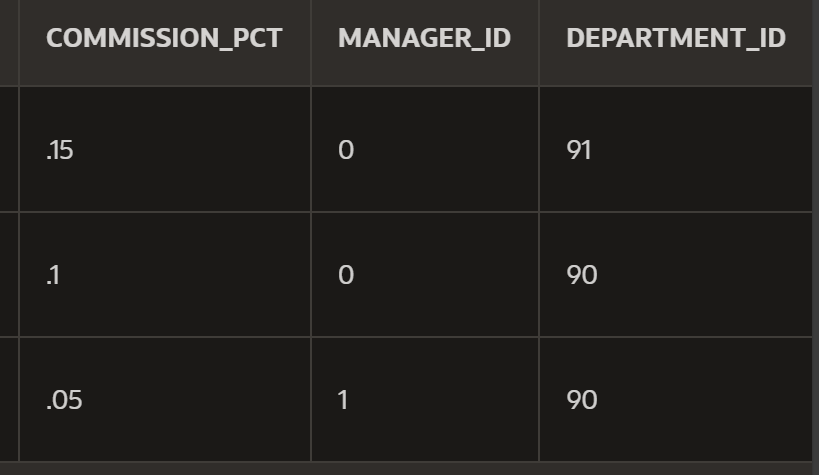


### 5.3:

**CURSOR FOR LOOPS:**

**TABLE:**





DECLARE

CURSOR cur\_emps IS

SELECT employee\_id, last\_name

FROM employee3

WHERE department\_id = 91;

BEGIN

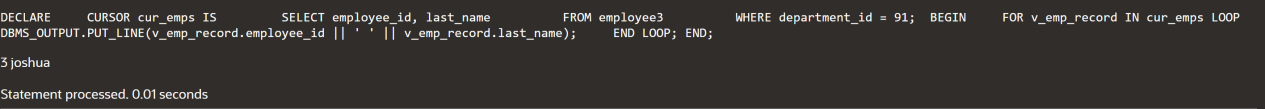
FOR v\_emp\_record IN cur\_emps LOOP

DBMS\_OUTPUT.PUT\_LINE(v\_emp\_record.employee\_id || ' ' || v\_emp\_record.last\_name);

END LOOP;

END;

**OUTPUT:**

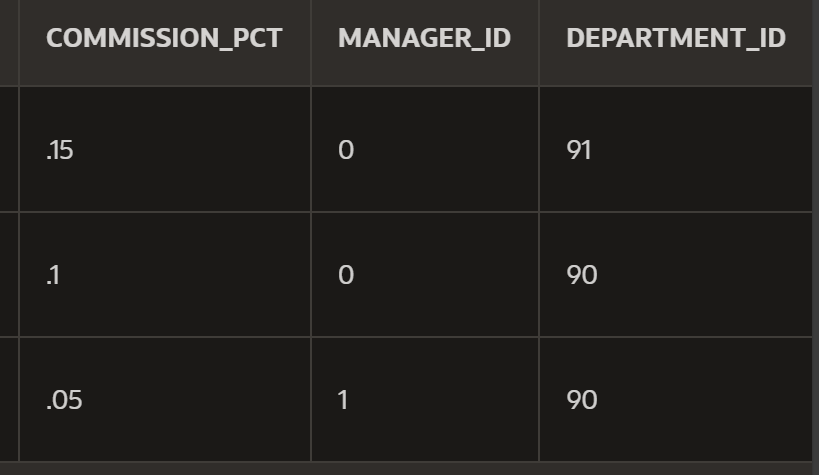


### 5.4:

**CURSOR WITH PARAMETERS:**

**TABLE:**





DECLARE

v\_deptid employee3.department\_id%TYPE;

CURSOR cur\_emps (p\_deptid NUMBER) IS

SELECT employee\_id, salary

FROM employee3

WHERE department\_id = p\_deptid;

v\_emp\_rec cur\_emps%ROWTYPE;

BEGIN

SELECT MAX(department\_id) INTO v\_deptid FROM employee3;

OPEN cur\_emps(v\_deptid);

LOOP

FETCH cur\_emps INTO v\_emp\_rec;

EXIT WHEN cur\_emps%NOTFOUND;

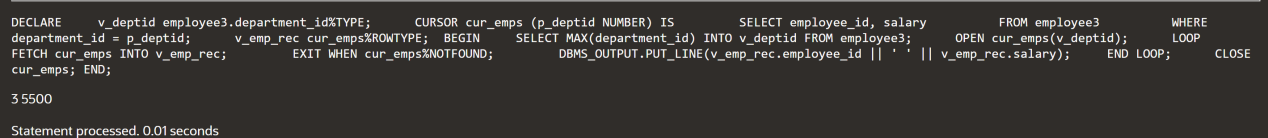
DBMS\_OUTPUT.PUT\_LINE(v\_emp\_rec.employee\_id || ' ' || v\_emp\_rec.salary);

END LOOP;

CLOSE cur\_emps;

END;

**OUTPUT:**

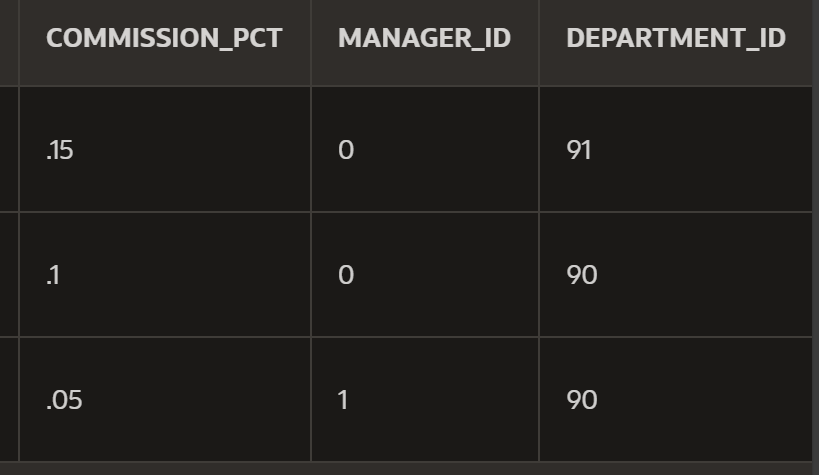


## 5.5:

**NOWAIT,UPDATE AND WHERE CURRENT OF CLAUSE:**

**TABLE:**





DECLARE

CURSOR cur\_emps IS

SELECT employee\_id, salary

FROM employee3

WHERE salary <= 20000

FOR UPDATE NOWAIT;

v\_emp\_rec cur\_emps%ROWTYPE;

BEGIN

OPEN cur\_emps;

LOOP

FETCH cur\_emps INTO v\_emp\_rec;

EXIT WHEN cur\_emps%NOTFOUND;

UPDATE employee3

SET salary = v\_emp\_rec.salary \* 1.1

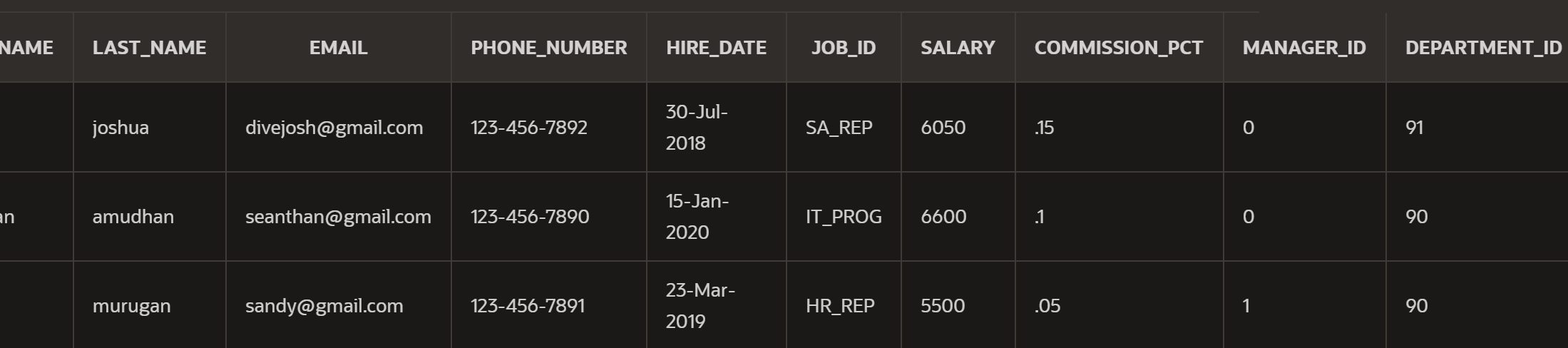
WHERE CURRENT OF cur\_emps;

END LOOP;

CLOSE cur\_emps;

END;

**OUTPUT:**



## 5.6:

DECLARE

CURSOR cur\_dept IS

SELECT department\_id, department\_name

FROM department1;

CURSOR cur\_emp(p\_deptid NUMBER) IS

SELECT last\_name, first\_name

FROM employee3

WHERE department\_id = p\_deptid;

v\_deptrec cur\_dept%ROWTYPE;

v\_emprec cur\_emp%ROWTYPE;

BEGIN

OPEN cur\_dept;

LOOP

FETCH cur\_dept INTO v\_deptrec;

EXIT WHEN cur\_dept%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE(v\_deptrec.department\_name);

OPEN cur\_emp(v\_deptrec.department\_id);

LOOP

FETCH cur\_emp INTO v\_emprec;

EXIT WHEN cur\_emp%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE(v\_emprec.last\_name || ', ' || v\_emprec.first\_name);

END LOOP;

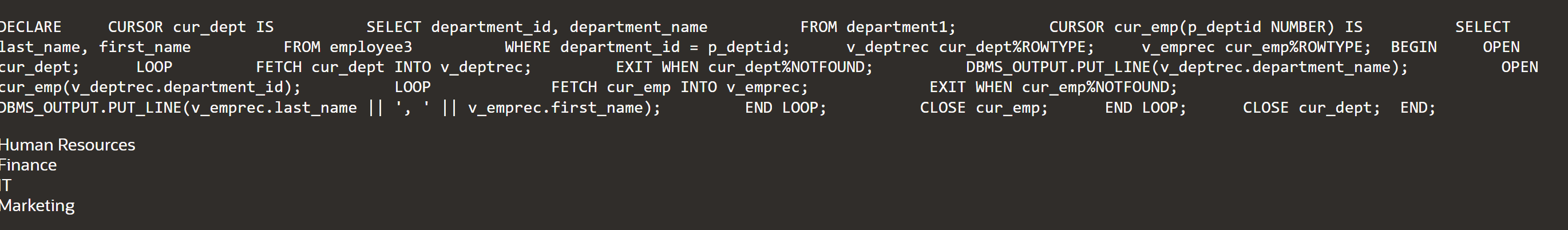
CLOSE cur\_emp;

END LOOP;

CLOSE cur\_dept;

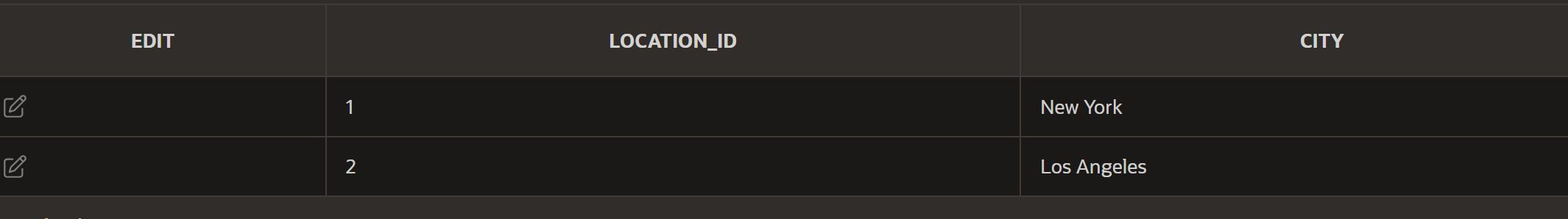
END;

**OUTPUT:**

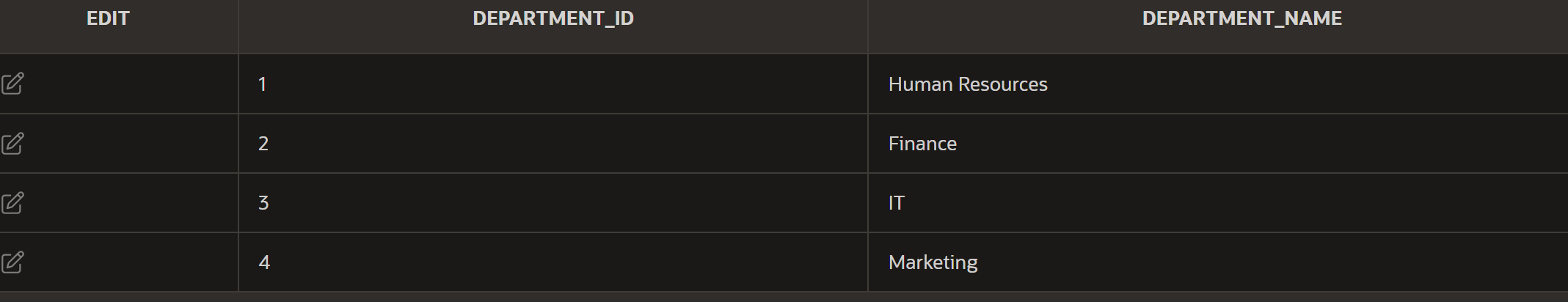


**USING FOR LOOP WITH MULTIPLE CURSORS:**

**Laction table:**



**Department table:**



DECLARE

CURSOR cur\_loc IS

SELECT \* FROM locations;

CURSOR cur\_dept(p\_locid NUMBER) IS

SELECT \* FROM department2 WHERE location\_id = p\_locid;

BEGIN

FOR v\_locrec IN cur\_loc LOOP

DBMS\_OUTPUT.PUT\_LINE(v\_locrec.city);

FOR v\_deptrec IN cur\_dept(v\_locrec.location\_id) LOOP

DBMS\_OUTPUT.PUT\_LINE(v\_deptrec.department\_name);

END LOOP;

END LOOP;

END;

**Output:**

