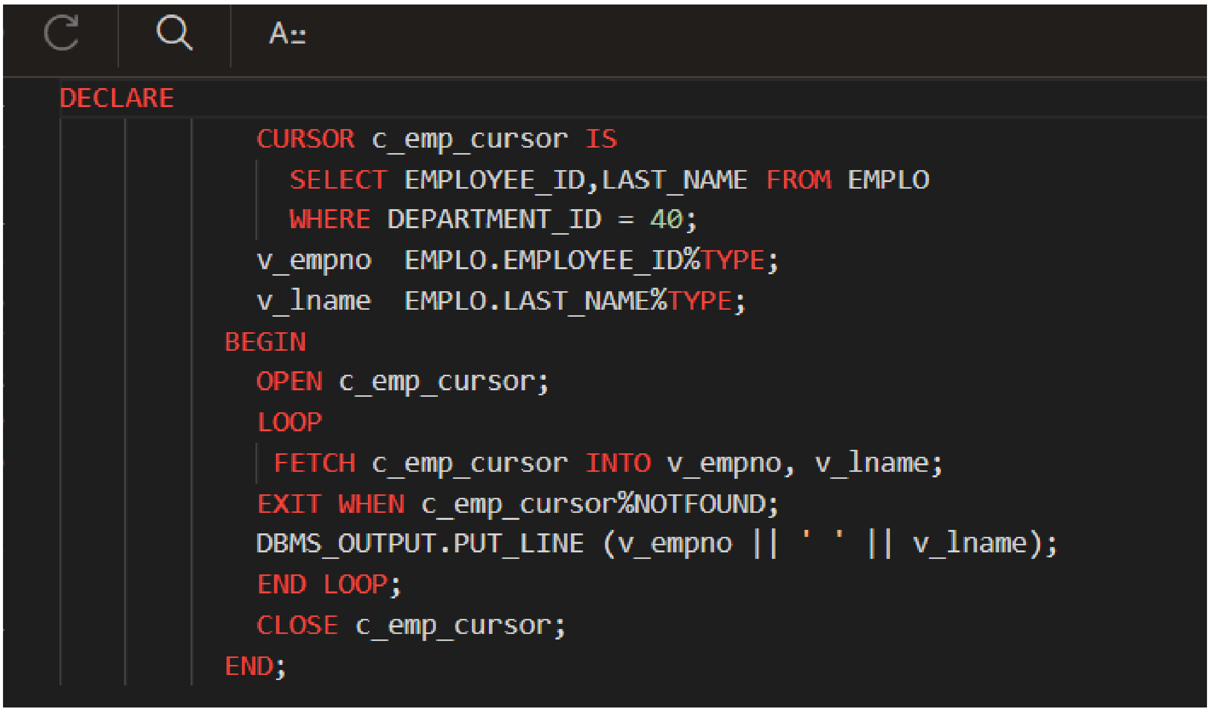
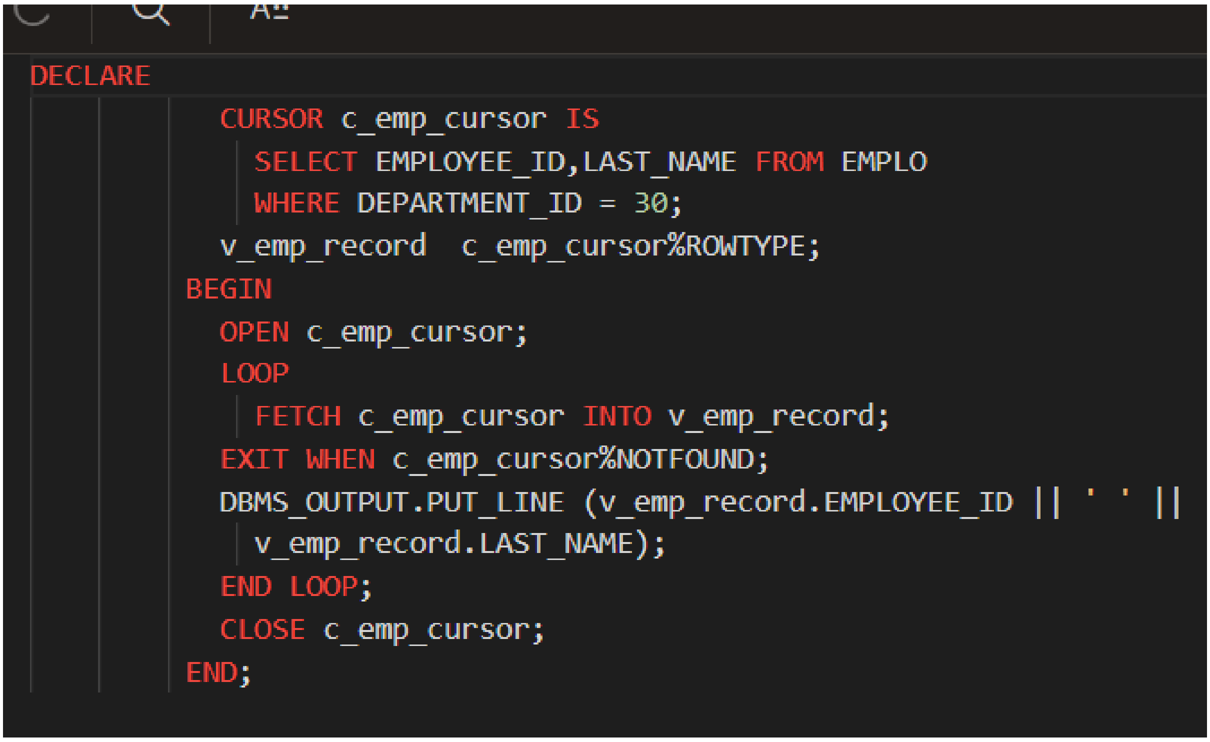
FETCHING THE VALUES FROM THE CURSOR:

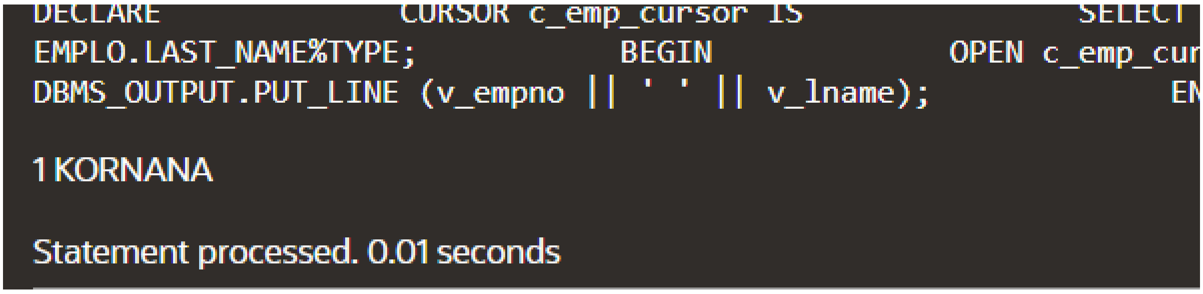


```
DECLARE
        CURSOR c_emp_cursor IS
          SELECT EMPLOYEE_ID,LAST_NAME FROM EMPLO
          WHERE DEPARTMENT_ID = 40;
        v_empno  EMPLO.EMPLOYEE_ID%TYPE;
        v_lname  EMPLO.LAST_NAME%TYPE;
      BEGIN
        OPEN c_emp_cursor;
        LOOP
         FETCH c_emp_cursor INTO v_empno, v_lname;
        EXIT WHEN c_emp_cursor%NOTFOUND;
        DBMS_OUTPUT.PUT_LINE (v_empno || ' ' || v_lname);
        END LOOP;
        CLOSE c_emp_cursor;
      END;
```

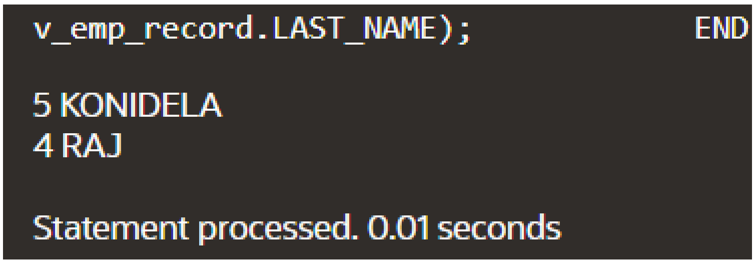
FETCHING THE VALUES IN THE RECORD:



```
DECLARE
        CURSOR c_emp_cursor IS
          SELECT EMPLOYEE_ID,LAST_NAME FROM EMPLO
          WHERE DEPARTMENT_ID = 30;
        v_emp_record  c_emp_cursor%ROWTYPE;
      BEGIN
        OPEN c_emp_cursor;
        LOOP
          FETCH c_emp_cursor INTO v_emp_record;
        EXIT WHEN c_emp_cursor%NOTFOUND;
        DBMS_OUTPUT.PUT_LINE (v_emp_record.EMPLOYEE_ID || ' ' ||
          v_emp_record.LAST_NAME);
        END LOOP;
        CLOSE c_emp_cursor;
      END;
```

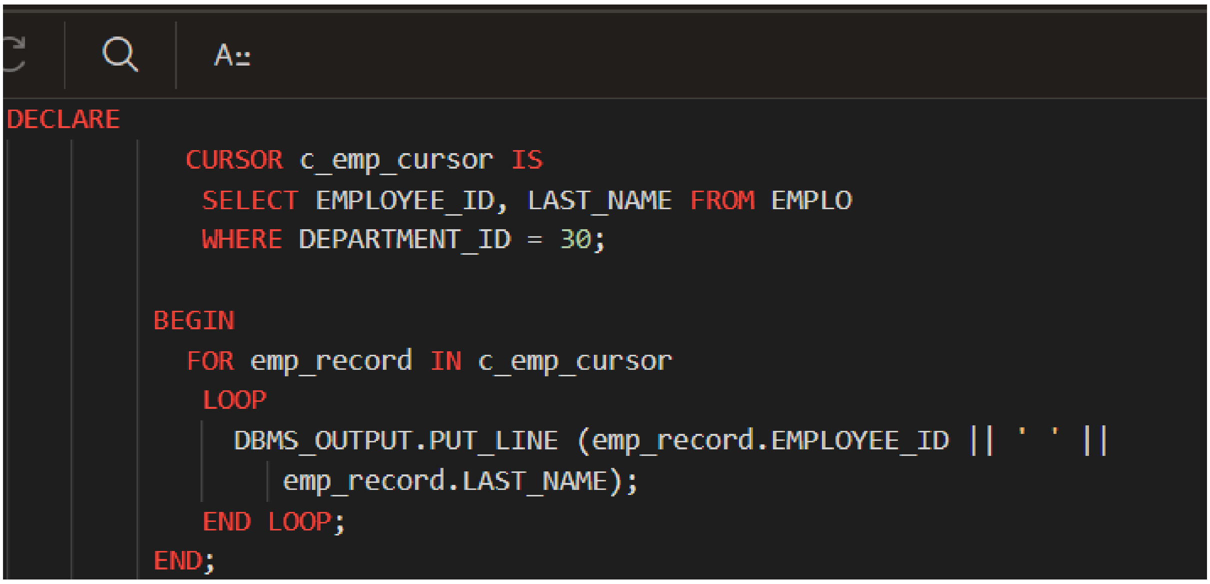


```
DECLARE                CURSOR c_emp_cursor IS                  SELECT
EMPLO.LAST_NAME%TYPE;          BEGIN              OPEN c_emp_cur
DBMS_OUTPUT.PUT_LINE (v_empno || ' ' || v_lname);              EN

1 KORNANA

Statement processed. 0.01 seconds
```

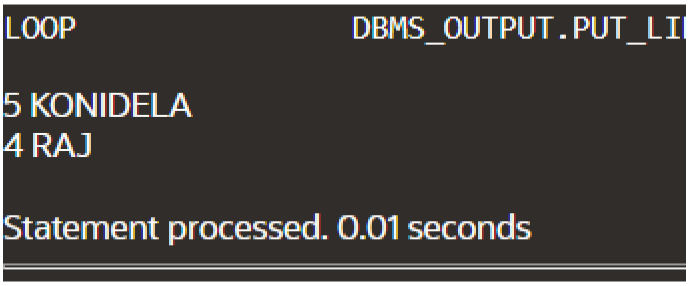


```
v_emp_record.LAST_NAME);              END

5 KONIDELA
4 RAJ

Statement processed. 0.01 seconds
```

USING A CURSOR FOR LOOP:

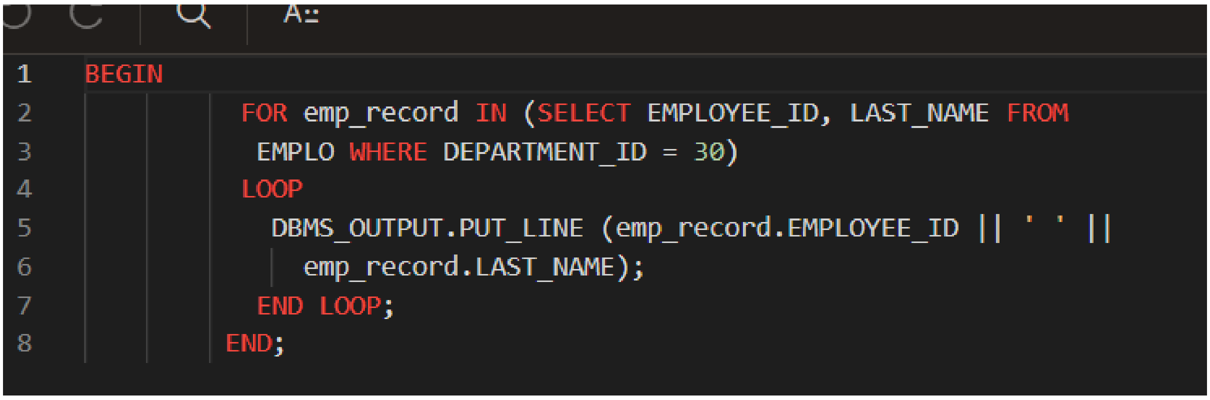


```
DECLARE
          CURSOR c_emp_cursor IS
           SELECT EMPLOYEE_ID, LAST_NAME FROM EMPLO
           WHERE DEPARTMENT_ID = 30;

        BEGIN
          FOR emp_record IN c_emp_cursor
           LOOP
             DBMS_OUTPUT.PUT_LINE (emp_record.EMPLOYEE_ID || ' ' ||
                emp_record.LAST_NAME);
           END LOOP;
        END;
```

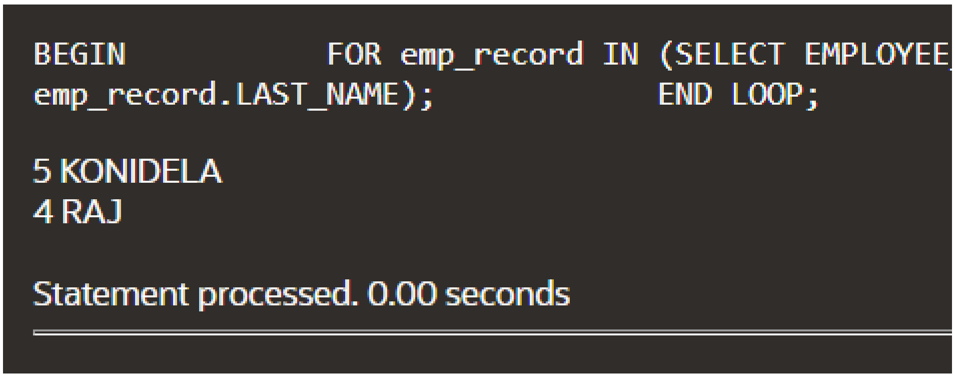


```
LOOP                 DBMS_OUTPUT.PUT_LI

5 KONIDELA
4 RAJ

Statement processed. 0.01 seconds
```

USING A CURSOR FOR LOOP WITH SUBQUERIES

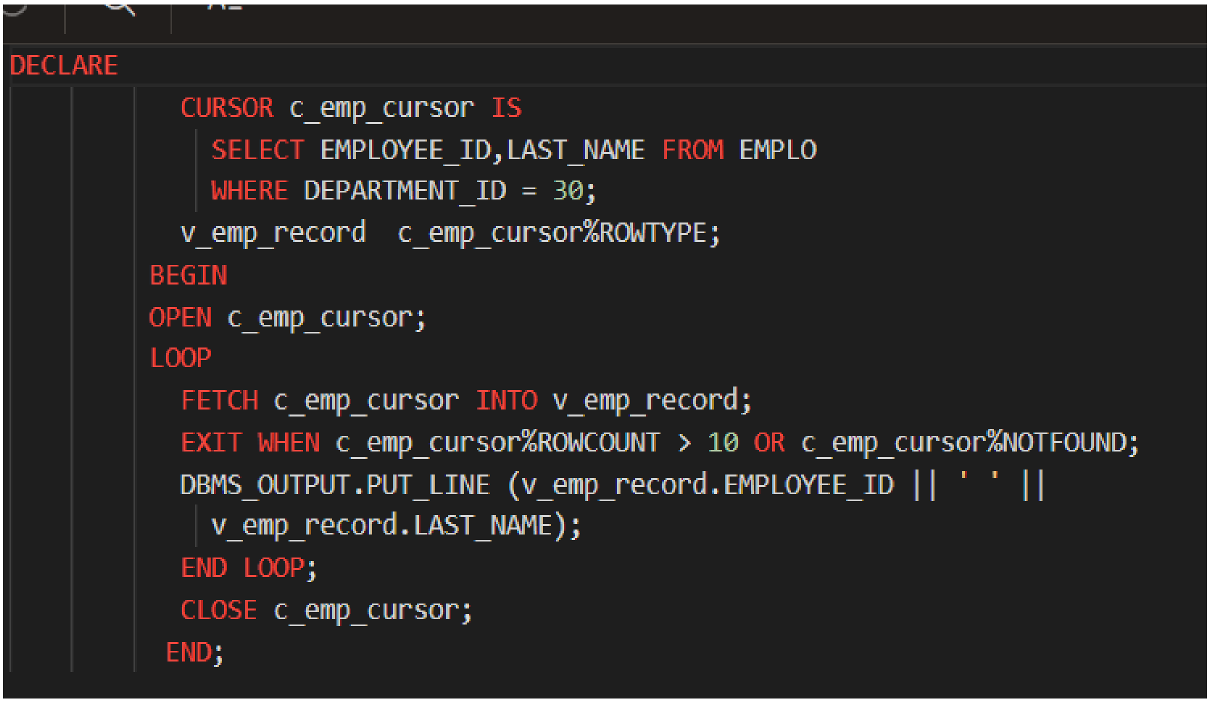


```
BEGIN
        FOR emp_record IN (SELECT EMPLOYEE_ID, LAST_NAME FROM
         EMPLO WHERE DEPARTMENT_ID = 30)
        LOOP
          DBMS_OUTPUT.PUT_LINE (emp_record.EMPLOYEE_ID || ' ' ||
            emp_record.LAST_NAME);
         END LOOP;
       END;
```

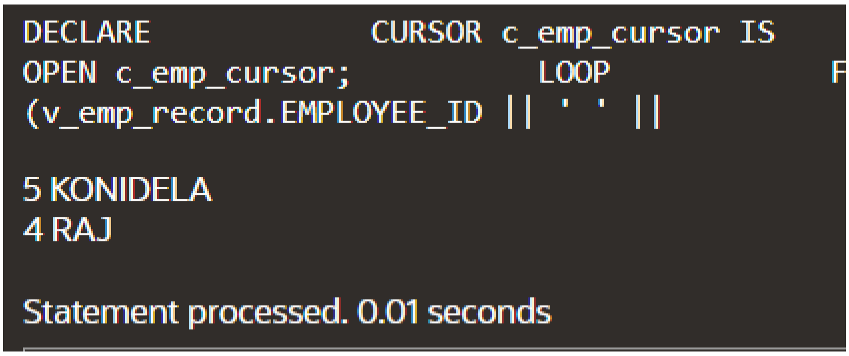


```
BEGIN           FOR emp_record IN (SELECT EMPLOYEE
emp_record.LAST_NAME);            END LOOP;

5 KONIDELA
4 RAJ

Statement processed. 0.00 seconds
```

USING %ROWCOUNT AND %NOTFOUND ATTRIBUTES

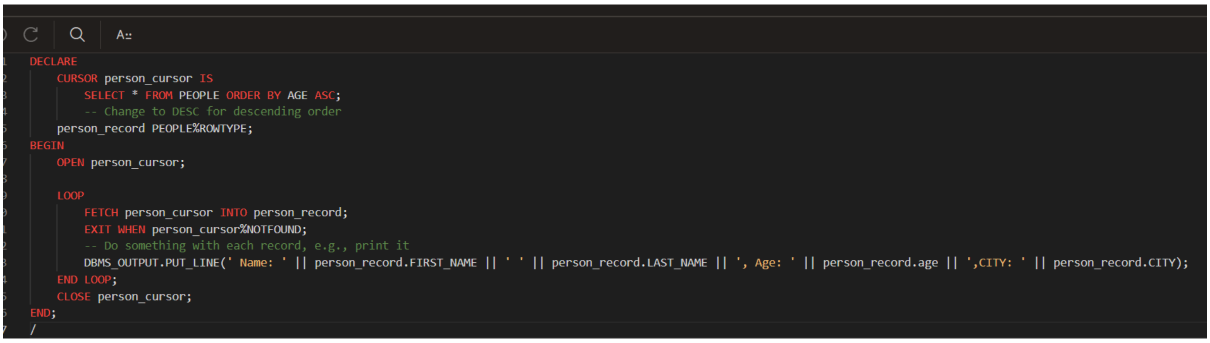


```
DECLARE
           CURSOR c_emp_cursor IS
             SELECT EMPLOYEE_ID,LAST_NAME FROM EMPLO
             WHERE DEPARTMENT_ID = 30;
           v_emp_record  c_emp_cursor%ROWTYPE;
         BEGIN
         OPEN c_emp_cursor;
         LOOP
           FETCH c_emp_cursor INTO v_emp_record;
           EXIT WHEN c_emp_cursor%ROWCOUNT > 10 OR c_emp_cursor%NOTFOUND;
           DBMS_OUTPUT.PUT_LINE (v_emp_record.EMPLOYEE_ID || ' ' ||
             v_emp_record.LAST_NAME);
           END LOOP;
           CLOSE c_emp_cursor;
          END;
```

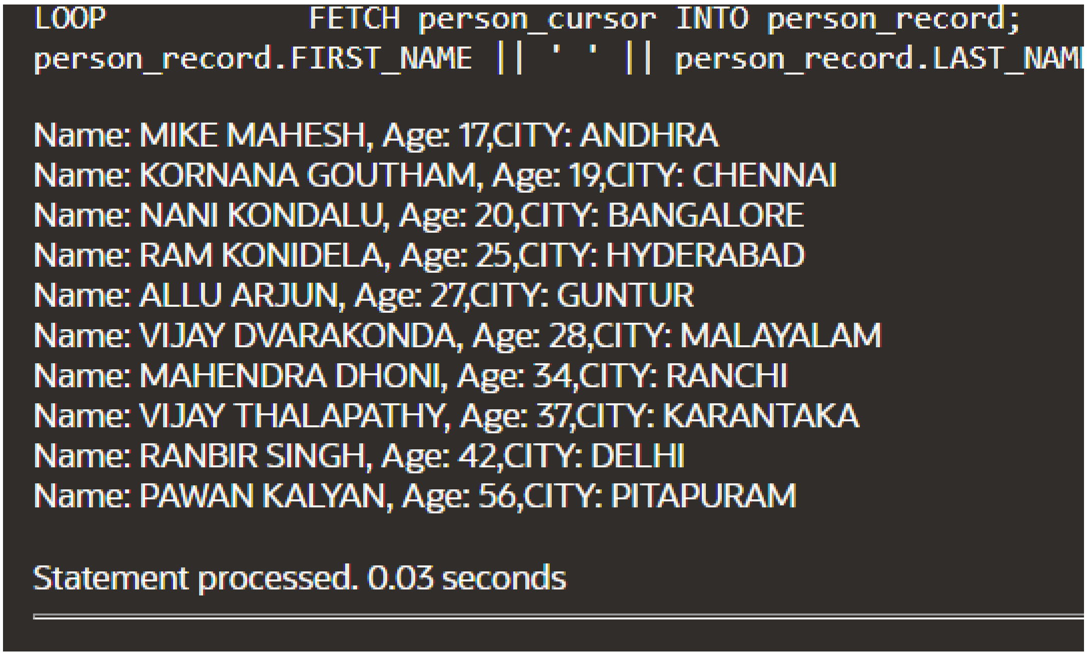


```
DECLARE             CURSOR c_emp_cursor IS
OPEN c_emp_cursor;           LOOP           F
(v_emp_record.EMPLOYEE_ID || ' ' ||

5 KONIDELA
4 RAJ

Statement processed. 0.01 seconds
```

USING CURSOR DATA IN ASCENDING ORD000ER:

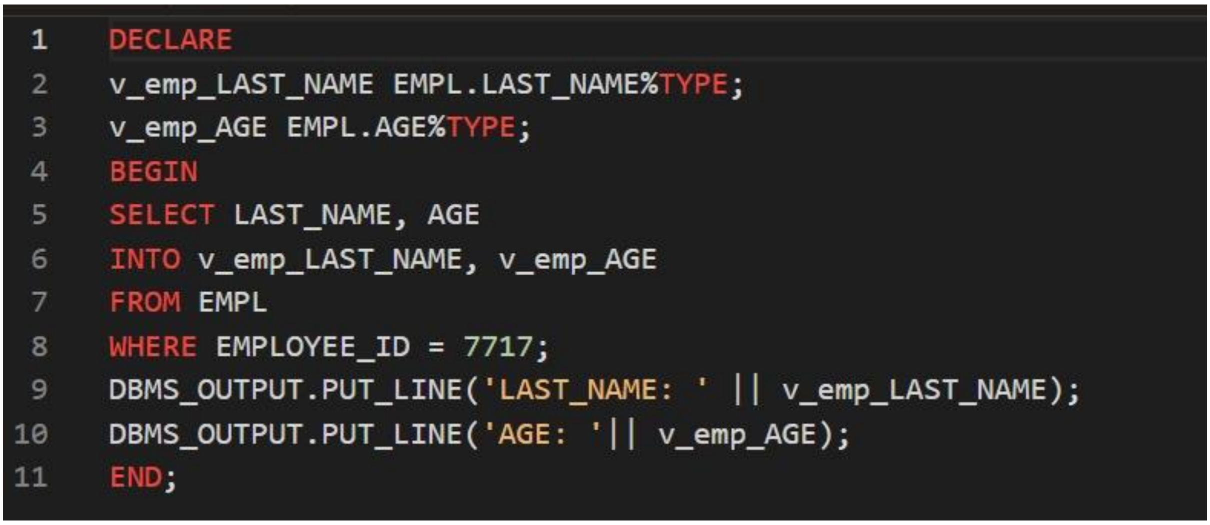


```
DECLARE
    CURSOR person_cursor IS
        SELECT * FROM PEOPLE ORDER BY AGE ASC;
        -- Change to DESC for descending order
    person_record PEOPLE%ROWTYPE;
BEGIN
    OPEN person_cursor;

    LOOP
        FETCH person_cursor INTO person_record;
        EXIT WHEN person_cursor%NOTFOUND;
        -- Do something with each record, e.g., print it
        DBMS_OUTPUT.PUT_LINE(' Name: ' || person_record.FIRST_NAME || ' ' || person_record.LAST_NAME || ', Age: ' || person_record.age || ',CITY: ' || person_record.CITY);
    END LOOP;
    CLOSE person_cursor;
END;
/
```

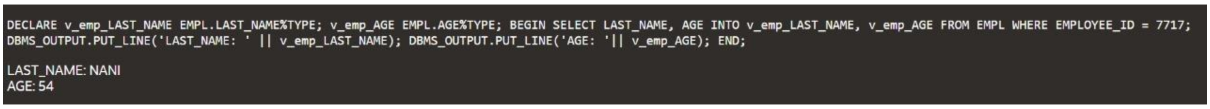


```
LOOP            FETCH person_cursor INTO person_record;
person_record.FIRST_NAME || ' ' || person_record.LAST_NAM

Name: MIKE MAHESH, Age: 17,CITY: ANDHRA
Name: KORNANA GOUTHAM, Age: 19,CITY: CHENNAI
Name: NANI KONDALU, Age: 20,CITY: BANGALORE
Name: RAM KONIDELA, Age: 25,CITY: HYDERABAD
Name: ALLU ARJUN, Age: 27,CITY: GUNTUR
Name: VIJAY DVARAKONDA, Age: 28,CITY: MALAYALAM
Name: MAHENDRA DHONI, Age: 34,CITY: RANCHI
Name: VIJAY THALAPATHY, Age: 37,CITY: KARANTAKA
Name: RANBIR SINGH, Age: 42,CITY: DELHI
Name: PAWAN KALYAN, Age: 56,CITY: PITAPURAM

Statement processed. 0.03 seconds
```

RETRIEVING THE DAT IN PL SQL:

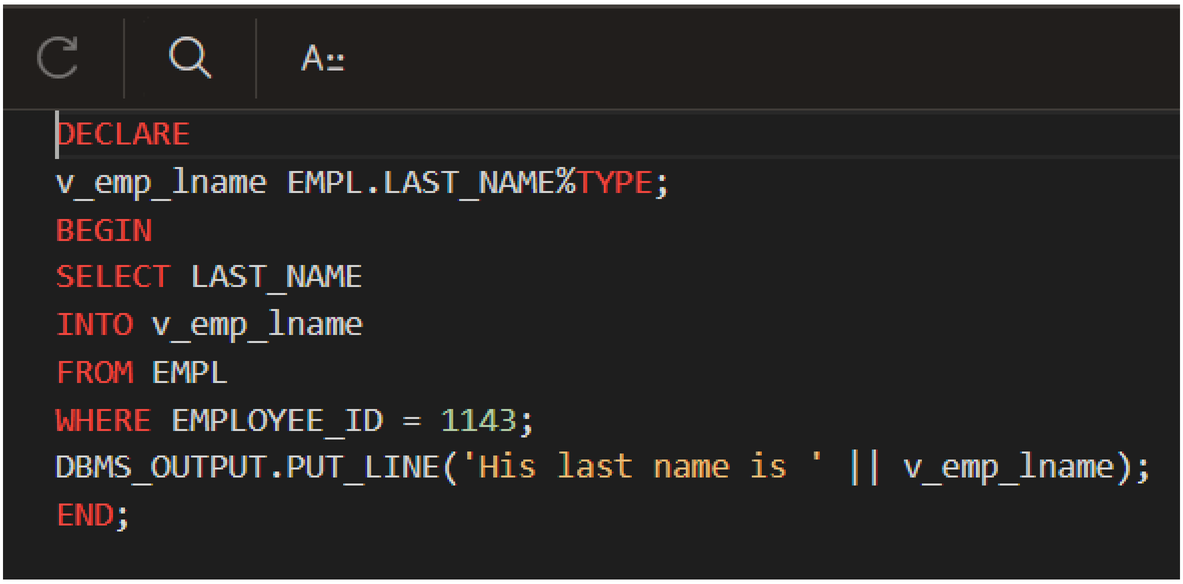


```
DECLARE
v_emp_LAST_NAME EMPL.LAST_NAME%TYPE;
v_emp_AGE EMPL.AGE%TYPE;
BEGIN
SELECT LAST_NAME, AGE
INTO v_emp_LAST_NAME, v_emp_AGE
FROM EMPL
WHERE EMPLOYEE_ID = 7717;
DBMS_OUTPUT.PUT_LINE('LAST_NAME: ' || v_emp_LAST_NAME);
DBMS_OUTPUT.PUT_LINE('AGE: '|| v_emp_AGE);
END;
```

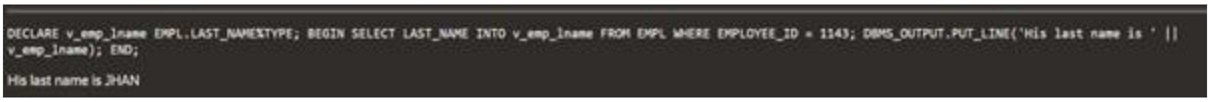


```
DECLARE v_emp_LAST_NAME EMPL.LAST_NAME%TYPE; v_emp_AGE EMPL.AGE%TYPE; BEGIN SELECT LAST_NAME, AGE INTO v_emp_LAST_NAME, v_emp_AGE FROM EMPL WHERE EMPLOYEE_ID = 7717;
DBMS_OUTPUT.PUT_LINE('LAST_NAME: ' || v_emp_LAST_NAME); DBMS_OUTPUT.PUT_LINE('AGE: '|| v_emp_AGE); END;

LAST_NAME: NANI
AGE: 54
```

USING TH INTO CLAUSE:

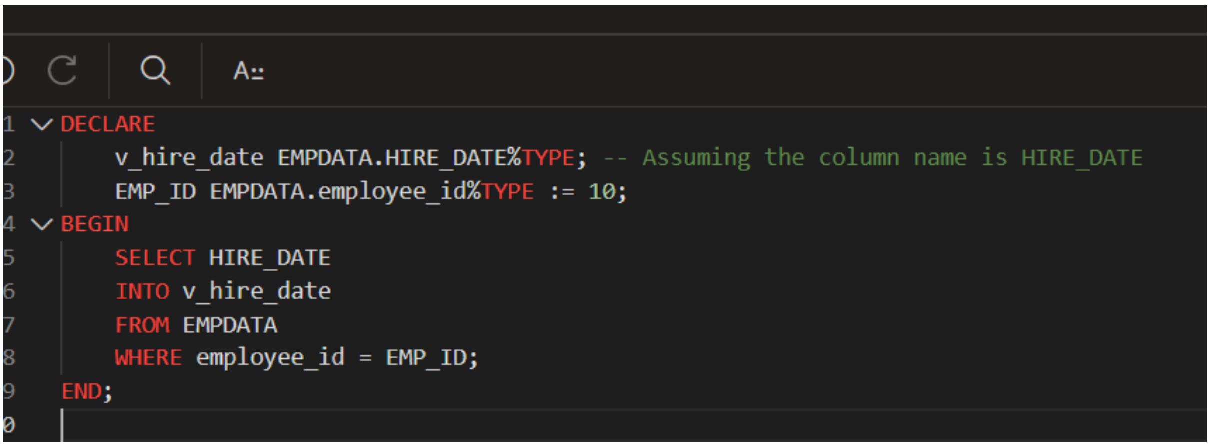


```
DECLARE
v_emp_lname EMPL.LAST_NAME%TYPE;
BEGIN
SELECT LAST_NAME
INTO v_emp_lname
FROM EMPL
WHERE EMPLOYEE_ID = 1143;
DBMS_OUTPUT.PUT_LINE('His last name is ' || v_emp_lname);
END;
```



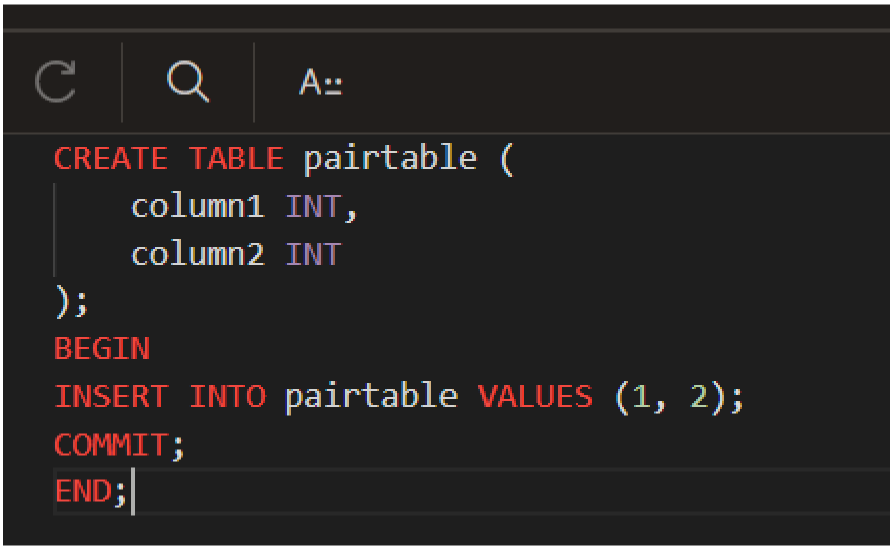
```
DECLARE v_emp_lname EMPL.LAST_NAME%TYPE; BEGIN SELECT LAST_NAME INTO v_emp_lname FROM EMPL WHERE EMPLOYEE_ID = 1143; DBMS_OUTPUT.PUT_LINE('His last name is ' ||
v_emp_lname); END;

His last name is JHAN
```

GUIDELINES FOR THE NAMING CONVERSATIONS:

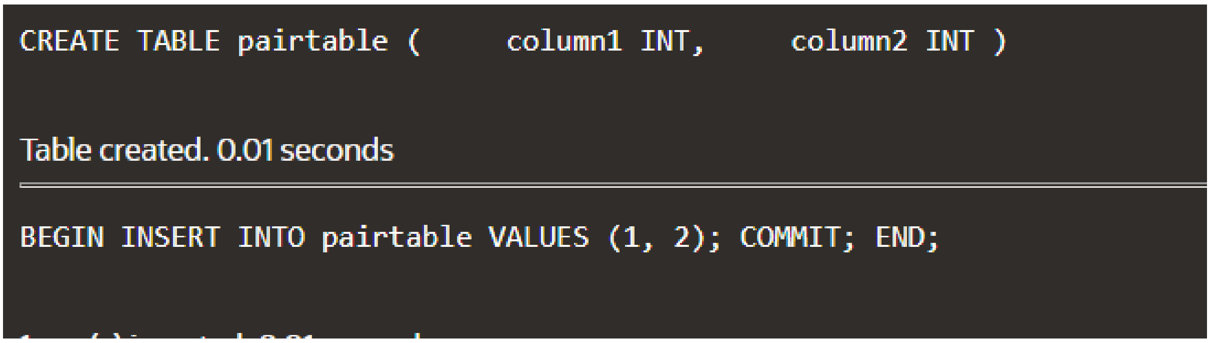


```
DECLARE
    v_hire_date EMPDATA.HIRE_DATE%TYPE; -- Assuming the column name is HIRE_DATE
    EMP_ID EMPDATA.employee_id%TYPE := 10;
BEGIN
    SELECT HIRE_DATE
    INTO v_hire_date
    FROM EMPDATA
    WHERE employee_id = EMP_ID;
END;
```

COMMIT

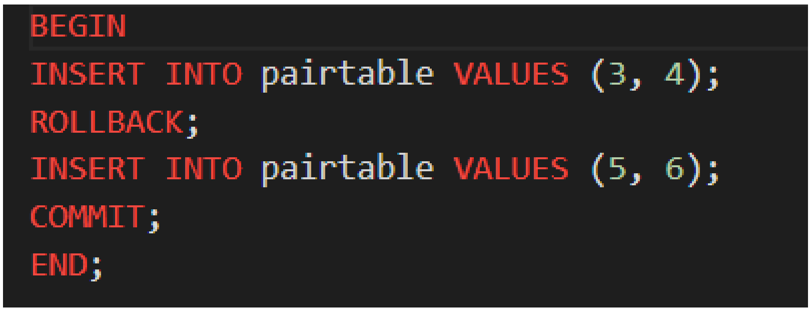


```
CREATE TABLE pairtable (
    column1 INT,
    column2 INT
);
BEGIN
INSERT INTO pairtable VALUES (1, 2);
COMMIT;
END;
```

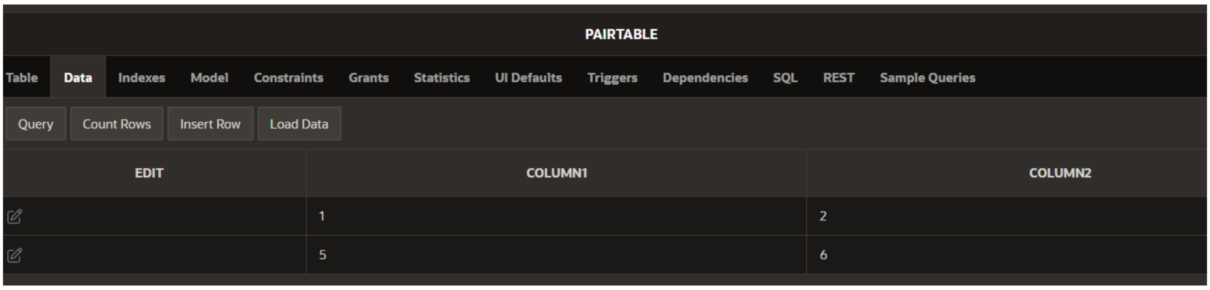


```
CREATE TABLE pairtable (     column1 INT,     column2 INT )

Table created. 0.01 seconds

BEGIN INSERT INTO pairtable VALUES (1, 2); COMMIT; END;
```

ROLLBACK:

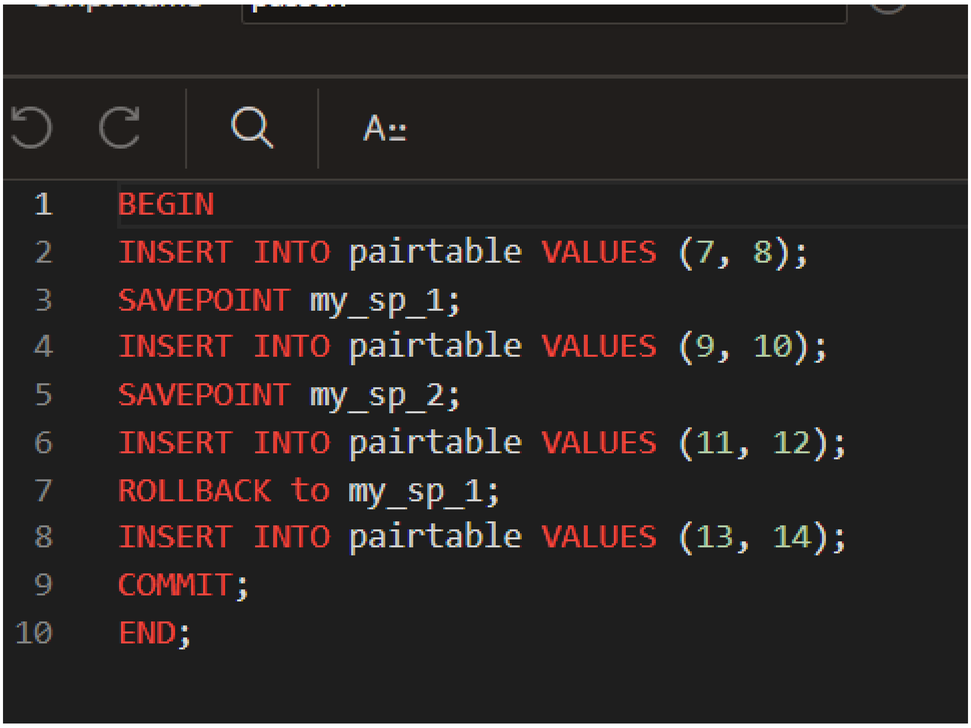


```
BEGIN
INSERT INTO pairtable VALUES (3, 4);
ROLLBACK;
INSERT INTO pairtable VALUES (5, 6);
COMMIT;
END;
```

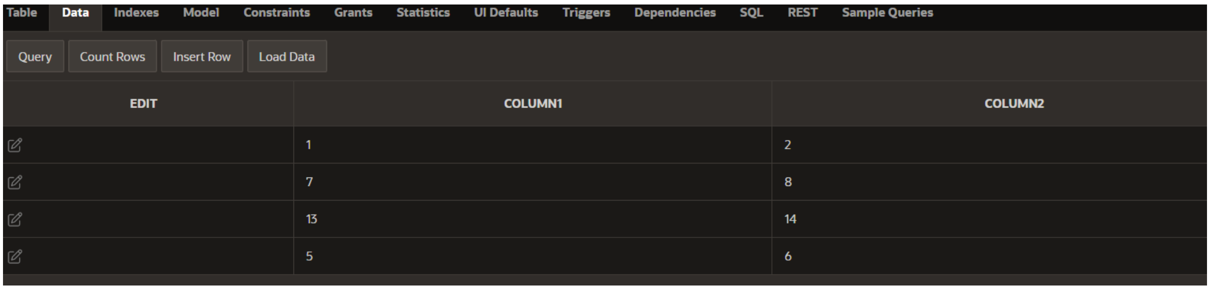


EDIT	COLUMN1	COLUMN2
✎	1	2
✎	5	6

SAVEPOINT



```
BEGIN
INSERT INTO pairtable VALUES (7, 8);
SAVEPOINT my_sp_1;
INSERT INTO pairtable VALUES (9, 10);
SAVEPOINT my_sp_2;
INSERT INTO pairtable VALUES (11, 12);
ROLLBACK to my_sp_1;
INSERT INTO pairtable VALUES (13, 14);
COMMIT;
END;
```



EDIT	COLUMN1	COLUMN2
✎	1	2
✎	7	8
✎	13	14
✎	5	6