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SHUSHRUT KUMAR

CSE-CC J2

DBMS EXP 10 : CURSORS

create table Electricity049 (Name varchar2(15), Prev_Reading number(5), Curr_Reading number(5));

INSERT INTO Electricity049 VALUES ('Shushrut Kumar', 2590, 5891);

INSERT INTO Electricity049 VALUES ('Viren Parmar', 7555, 10210);

INSERT INTO Electricity049 VALUES ('Vidhi Rai', 8190, 11203);

```
SQL> select * from Electricity049;

NAME            PREV_READING CURR_READING
--------------- ------------ ------------
Shushrut Kumar          2590         5891
Viren Parmar            7555        10210
Vidhi Rai               8190        11203
```

create table STUDENT049 (Name varchar(20), Maths number(3), Science number(3));

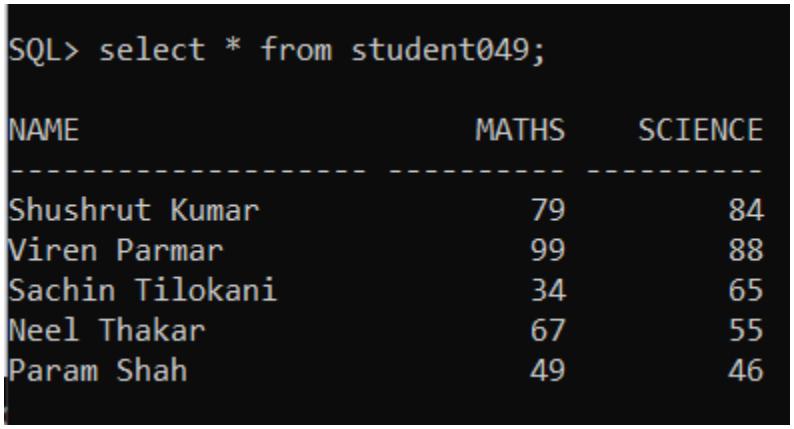
INSERT INTO STUDENT049 VALUES ('Shushrut Kumar', 79, 84);

INSERT INTO STUDENT049 VALUES ('Viren Parmar', 99, 88);

INSERT INTO STUDENT049 VALUES ('Sachin Tilokani', 34, 65);

INSERT INTO STUDENT049 VALUES ('Neel Thakar', 67, 55);

INSERT INTO STUDENT049 VALUES ('Param Shah', 49, 46);



```
SQL> select * from student049;

NAME                      MATHS    SCIENCE
------------------- ---------- ----------
Shushrut Kumar               79         84
Viren Parmar                 99         88
Sachin Tilokani              34         65
Neel Thakar                  67         55
Param Shah                   49         46
```

1. **CURSOR PROGRAM FOR ELECTRICITY BILL CALCULATION**

```
set serveroutput on;
DECLARE
CURSOR bill
IS
SELECT * FROM Electricity049;
ROW_ELECTRICITY ELECTRICITY049%ROWTYPE;
AMOUNT NUMBER(9,2);
BEGIN
OPEN bill;
LOOP
FETCH bill INTO ROW_ELECTRICITY;
EXIT WHEN bill%NOTFOUND;
AMOUNT := ( ROW_ELECTRICITY.CURR_READING -
ROW_ELECTRICITY.PREV_READING ) * 5;
```

DBMS_OUTPUT.PUT_LINE('BILL FOR ' || ROW_ELECTRICITY.NAME || ' is Rs ' ||
AMOUNT);
END LOOP;
CLOSE bill;
END;
/

```
SQL> set serveroutput on;
SQL> DECLARE
  2  CURSOR bill
  3  IS
  4  SELECT * FROM Electricity049;
  5  ROW_ELECTRICITY ELECTRICITY049%ROWTYPE;
  6  AMOUNT NUMBER(9,2);
  7  BEGIN
  8  OPEN bill;
  9  LOOP
 10  FETCH bill INTO ROW_ELECTRICITY;
 11  EXIT WHEN bill%NOTFOUND;
 12  AMOUNT := ( ROW_ELECTRICITY.CURR_READING - ROW_ELECTRICITY.PREV_READING ) * 5;
 13  DBMS_OUTPUT.PUT_LINE('BILL FOR ' || ROW_ELECTRICITY.NAME || ' is Rs ' || AMOUNT);
 14  END LOOP;
 15  CLOSE bill;
 16  END;
 17  /
BILL FOR Shushrut Kumar is Rs 16505
BILL FOR Viren Parmar is Rs 13275
BILL FOR Vidhi Rai is Rs 15065
```

2. CURSOR PROGRAM FOR STUDENT GRADE CALCULATION

set serveroutput on;
DECLARE
CURSOR grade
IS
SELECT * FROM STUDENT049;
STUDENT_ROW STUDENT049%ROWTYPE;
BEGIN
OPEN grade;
LOOP
FETCH grade INTO STUDENT_ROW;
EXIT WHEN grade%NOTFOUND;

```
IF (STUDENT_ROW.MATHS + STUDENT_ROW.SCIENCE) > 100 THEN
DBMS_OUTPUT.PUT_LINE(STUDENT_ROW.NAME || ' has achieved grade PASS
with total marks = ' || (STUDENT_ROW.MATHS + STUDENT_ROW.SCIENCE));
ELSE
DBMS_OUTPUT.PUT_LINE(STUDENT_ROW.NAME || ' has achieved grade FAIL
with total marks = ' || (STUDENT_ROW.MATHS + STUDENT_ROW.SCIENCE));
END IF;
END LOOP;
CLOSE grade;
END;
/
```

```
SQL> set serveroutput on;
SQL> DECLARE
  2  CURSOR grade
  3  IS
  4  SELECT * FROM STUDENT049;
  5  STUDENT_ROW STUDENT049%ROWTYPE;
  6  BEGIN
  7  OPEN grade;
  8  LOOP
  9  FETCH grade INTO STUDENT_ROW;
 10  EXIT WHEN grade%NOTFOUND;
 11  IF (STUDENT_ROW.MATHS + STUDENT_ROW.SCIENCE) > 100 THEN
 12  DBMS_OUTPUT.PUT_LINE(STUDENT_ROW.NAME || ' has achieved grade PASS with total marks = ' || (STUDENT_ROW.MATHS + STUDENT_ROW.SCIENCE));
 13  ELSE
 14  DBMS_OUTPUT.PUT_LINE(STUDENT_ROW.NAME || ' has achieved grade FAIL with total marks = ' || (STUDENT_ROW.MATHS + STUDENT_ROW.SCIENCE));
 15  END IF;
 16  END LOOP;
 17  CLOSE grade;
 18  END;
 19  /
Shushrut Kumar has achieved grade PASS with total marks = 163
Viren Parmar has achieved grade PASS with total marks = 187
Sachin Tilokani has achieved grade FAIL with total marks = 99
Neel Thakar has achieved grade PASS with total marks = 122
Param Shah has achieved grade FAIL with total marks = 95

PL/SQL procedure successfully completed.
```