Name: Samriddhi Verma
Reg. No.: 16BCE1375

VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Programme	:	**B.Tech - CSE**	Semester	:	**Winter 18 - 19**
Course	:	**Database Management Systems (Embedded Lab)**	Code	:	**CSE2004**
Faculty	:	**Prof. A. Vijayalakshmi** **Prof. M. Premalatha**	Slot	:	**L3 + L4**

Ex. No: 10
25-03-19

PL-SQL Cursors

Student (name, street, city, course_name, marks)

SQL> create table stud(name varchar(15),street varchar(20),city varchar(10), course_name varchar(10),marks number(4,2),cgpa number(4,2),constraint pk_stu primary key(name));

Table created.

SQL> insert into stud values('&name','&street','&city','&course_name','&marks','&cgpa');

Enter value for name: Sam

Enter value for street: Kaushambi

Enter value for city: Delhi

Enter value for course_name: DBMS

Enter value for marks: 95

Enter value for cgpa: 8.9

old 1: insert into stud values('&name','&street','&city','&course_name','&marks','&cgpa')

new 1: insert into stud values('Sam','Kaushambi','Delhi','DBMS','95','8.9')

1 row created.

Name: Samriddhi Verma
Reg. No.: 16BCE1375

SQL> /

Enter value for name: Simran

Enter value for street: Kamla Nagar

Enter value for city: Delhi

Enter value for course_name: DLD

Enter value for marks: 88

Enter value for cgpa: 8.6

old 1: insert into stud values('&name','&street','&city','&course_name','&marks','&cgpa')

new 1: insert into stud values('Simran','Kamla Nagar','Delhi','DLD','88','8.6')

1 row created.

SQL> /

Enter value for name: Siddhi

Enter value for street: Green Park

Enter value for city: Delhi

Enter value for course_name: ML

Enter value for marks: 79

Enter value for cgpa: 82

old 1: insert into stud values('&name','&street','&city','&course_name','&marks','&cgpa')

new 1: insert into stud values('Siddhi','Green Park','Delhi','ML','79','8.2')

1 row created.

SQL> insert into stud values('&name','&street','&city','&course_name','&marks',’&cgpa’);

Name: Samriddhi Verma
Reg. No.: 16BCE1375

Enter value for name: Vip

Enter value for street: Tilak Nagar

Enter value for city: Delhi

Enter value for course_name: DBMS

Enter value for marks: 90

Enter value for cgpa: 9.4

old 1: insert into stud values('&name','&street','&city','&course_name','&marks','&cgpa')

new 1: insert into stud values('Vip','Tilak Nagar','Delhi','DBMS','90','9.4')

1 row created.

SQL> /

Enter value for name: Verma

Enter value for street: Moti Nagar

Enter value for city: Delhi

Enter value for course_name: ML

Enter value for marks: 85

Enter value for cgpa: 9.7

old 1: insert into stud values('&name','&street','&city','&course_name','&marks','&cgpa')

new 1: insert into stud values('Verma','Moti Nagar','Delhi','ML','85','9.7')

1 row created.

SQL> /

Enter value for name: AB

Name: Samriddhi Verma
Reg. No.: 16BCE1375

Enter value for street: Dwarka

Enter value for city: Delhi

Enter value for course_name: DLD

Enter value for marks: 93

Enter value for cgpa: 8.4

old 1: insert into stud values('&name','&street','&city','&course_name','&marks','&cgpa')

new 1: insert into stud values('AB','Dwarka','Delhi','DLD','93','8.4')

1 row created.

SQL> select * from stud;

NAME	STREET	CITY	COURSE_NAM	MARKS	CGPA
Sam	Kaushambi	Delhi	DBMS	95	8.9
Simran	Kamla Nagar	Delhi	DLD	88	8.6
Siddhi	Green Park	Delhi	ML	79	8.2
Vip	Tilak Nagar	Delhi	DBMS	90	9.4
Verma	Moti Nagar	Delhi	ML	85	9.7
AB	Dwarka	Delhi	DLD	93	8.4

6 rows selected.

Name: Samriddhi Verma
Reg. No.: 16BCE1375

1. **Write an implicit cursor to display the number of students with > 9 cgpa**

```
SQL> set serveroutput on;
SQL> declare
  2  res_count number(2);
  3  begin
  4  select count(*) into res_count from stud where cgpa>9;
  5  dbms_output.put_line(res_count);
  6  end;
  7  /
2

PL/SQL procedure successfully completed.
```

Name: Samriddhi Verma
Reg. No.: 16BCE1375

2. **Write an explicit cursor and calculate the grade for each student for each course and display the students' details along with the grade.**

```
SQL> set serveroutput on;
SQL> declare
  2  stu_name stud.name%type;
  3  stu_course stud.course%type;
  4  stu_marks stud.marks%type;
  5  grade char(2);
  6  CURSOR s_stud is
  7     select name,course,marks from stud;
  8  begin
  9     open s_stud;
 10      loop
 11      fetch s_stud into stu_name,stu_course,stu_marks;
 12              exit when s_stud%notfound;
 13      if(stu_marks>=90) then
 14       grade:='S';
 15      else if(stu_marks<=90) and (stu_marks>=80) then
 16       grade:='A';
 17      else if(stu_marks<=70) then
 18       grade:='B';
 19      end if;
 20      end if;
 21      dbms_output.put_line(stu_name||' '||stu_course||' '||grade);
 22      end loop;
 23      close s_stud;
 24  end;
 25  /
Sam      DBMS     S
Vip      DBMS      S
```

Name: Samriddhi Verma
Reg. No.: 16BCE1375

```
Simran   DLD    A
AB     DLD   S
Siddhi    ML    B
Verma   ML    A

PL/SQL procedure successfully completed.
```

3. **Write a PL/SQL cursor to display the average marks of all the students for each course.**

```
SQL> declare
  2    s_course stud.course_name%type;
  3    s_marks stud.marks%type;
  4    cursor s_stud is
  5           select course_name,avg(marks) from stud group by course_name;
  6  begin
  7    open s_stud;
  8    LOOP
  9    FETCH s_stud into s_course,s_marks;
 10     exit when s_stud%notfound;
 11     dbms_output.put_line(s_course||' '||s_marks);
 12     end LOOP;
 13     close s_stud;
 14  end;
 15  /
DLD 90.5
DBMS 92.5
ML 82

PL/SQL procedure successfully completed.
```