



**VIT**<sup>®</sup>  
Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)

## Lab sheet – 9 (L9+L10)

### PL / SQL

#### (Procedures, Functions)

Name: Dishant Naik

Reg no.: 21MIA1127

### Practice Exercises

1. Create the Table:

Student (sname, regno, dept, year, Mark1, Mark2, Mark3, Total, Average)

Answer:

```
SQL> create table student_MIA1127(sname varchar2(20), regno varchar2(10), dept char(10), year int, mark1 int, mark2 int, mark3 int);
```

Table created.

2. Write a PL/SQL Procedure to insert records in the student table except the columns total, average

Answer:

```
SQL> create or replace procedure stud_MIA1127(name student_MIA1127.sname%type, sregno student_MIA1127.regno%type, sdept student_MIA1127.dept%type, syear student_MIA1127.year%type, smark1 student_MIA1127.mark1%type, smark2 student_MIA1127.mark2%type, smark3 student_MIA1127.mark3%type)
  2  as
  3  begin
  4  insert into student_MIA1127 values(name, sregno, sdept, syear, smark1, smark2, smark3
);
  5  end;
  6  /
```

Procedure created.

```

SQL> exec stud_MIA1127('dishant','21mia1127','cse',2021,100,97,98);

PL/SQL procedure successfully completed.

SQL> exec stud_MIA1127('alice','21mia0000','cse',2021,59,97,78);

PL/SQL procedure successfully completed.

SQL> exec stud_MIA1127('alice','21mia0001','cse',2021,95,79,87);

PL/SQL procedure successfully completed.

SQL> select * from student_MIA1127;

```

SNAME	REGNO	DEPT	YEAR	MARK1	MARK2
dishant	21mia1127	cse	2021	100	97
alice	21mia0000	cse	2021	59	97
alice	21mia0001	cse	2021	95	79

### 3. Write a PL/SQL Procedure to update the Total and Average in student table

**Answer:**

```

SQL> create or replace procedure update1127
2 is
3 begin
4 update student_MIA1127 SET total=mark1+mark2+mark3;
5 update student_MIA1127 SET average=total/3;
6 end;
7 /

Procedure created.

SQL> begin
2 update1127;
3 end;
4 /

PL/SQL procedure successfully completed.

```

```
SQL> select * from student_MIA1127;
```

SNAME	REGNO	DEPT	YEAR	MARK1	MARK2
MARK3	TOTAL	AVERAGE			
dishant	21mia1127	cse	2021	100	97
98	295	98			
alice	21mia0000	cse	2021	59	97
78	234	78			
alice	21mia0001	cse	2021	95	79
87	261	87			

```
SQL> select total,average from student_MIA1127;
```

TOTAL	AVERAGE
295	98
234	78
261	87

4. Write a PL/SQL Procedure to delete the student details belongs to ECE department

**Answer:**

```
SQL> create or replace procedure delete1127
2 is
3 begin
4 delete student_MIA1127 where dept='ECE';
5 end;
6 /
```

Procedure created.

```
SQL> begin
2 delete1127;
3 end;
4 /
```

PL/SQL procedure successfully completed.

```
SQL> select * from student_MIA1127;
```

SNAME	REGNO	DEPT	YEAR	MARK1	MARK2
MARK3	TOTAL	AVERAGE			
dishant	21mia1127	cse	2021	100	97
98	295	98			
alice	21mia0000	cse	2021	59	97
78	234	78			
alice	21mia0001	cse	2021	95	79
87	261	87			

5. Delete the procedure which used to delete the record

Answer:

```
SQL> drop procedure delete1127;

Procedure dropped.
```

## Exercises

### PL/SQL Procedures and Functions

1. Write PL/SQL function to compute EB Bill using the following criteria

- a. Units<=100 then Rs. 1.00/unit
- b. Units>100 and Units <=200 then Rs. 2.00/unit
- c. Units>200 and Units <=300 then Rs. 3.00/unit
- d. Units>300 then Rs. 5.00/unit

E.g.: if consumed units 350 then Pay= (100\*Rs.1)+(100\*R.2.00)+(100\*Rs.3.00)+(50\*Rs.5)

Answer:

```
SQL> create or replace procedure E_bill1127(unit in number,net out number)is
 2  begin
 3  if(unit between 0 and 100)
 4  then
 5  net:=unit*1;
 6  elsif(unit between 101 and 200)
 7  then
 8  net:=100*1+(unit-100)*2;
 9  elsif(unit between 200 and 300)
10  then
11  net:=1*100+2*100+(unit-200)*3;
12  elsif(unit<=301)
13  then
14  net:=1*100+2*100+100*3+(unit-300)*5;
15  end if;
16  end;
17  /

Procedure created.

SQL> SET SERVEROUTPUT ON
SQL> ;
 1  declare
 2  unit1 number:=300;
 3  total number;
 4  begin
 5  E_bill1127(unit1,total);
 6  dbms_output.put_line('For first '||unit1||' units '||' electricity bill: '||total);
 7* end;
SQL> /
For first 300 units  electricity bill: 600

PL/SQL procedure successfully completed.
```