DBMS Lab Experiment

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The Questions:

1. Write a PL/SQL block to retrieve name, salary of a particular employee identified by ssn from employee table by reading ssn value during runtime

Table Name: **EMP**

ssn	ename	designation	salary	deptno
102	Sen	clerk	20000	2
107	Jai	accountant	35000	2
108	Rai	officer	48000	1
100	Renu	operator	18000	1
103	Riaz	clerk	21000	1
101	Venu	officer	46000	2
109	Prabu	accountant	36000	1
114	Paul	operator	19000	2

2. Write a PL/SQL block to change designation to 'clerk ' for employee whose ssn is 100 interactively reading ssn during runtime.

3. Write a PL/SQL block to delete a particular employee record by taking his ssn interactively.

4. Write a PL/SQL block to calculate area of a circle given its radius
5. Write a PL/SQL block to find out Simple Interest given P=10000, N=2 and R=10% (Hint: Simple Interest(SI)=(P*N*R)/100)
6. Write a PL/SQL block to check whether entered character is either vowel or consonant
7. Write a PL/SQL block to check whether entered integer number is even or odd

8. Write
9. PL/SQL programs for the followingProgram
    - To check whether a person is male or female Program
    - To check whether a person is major or not Program
    - To check whether a student is attained 'S' grade or not Program
    - To check whether a person is a senior citizen or not Program
    - To check whether a student is passed or failed
10. Write a PL/SQL program to find the smallest among three integer numbers

11. Write a PL/SQL program to display cadre of an employee based on his basic pay

Basic Pay(Rs.)	Cadre
25000	Senior Prosser
20000	Professor
15000	Assistant Professor

12. Write a PL/SQL program to find the actual amount paid based on the following information using 'case... when' statement

Amount of purchase	Discount
10000	20%
8000	15%
5000	10%

13. Write a PL/SQL program to display the grade of a student based on the following information using 'case...when' statement

CGPA	Grade
90	S
80	A
70	B
60	C
50	D

The Answers:

1.

```
SQL> create table EMP(
  2  ssn number(4),
  3  ename varchar2(100),
  4  desgination varchar2(100),
  5  salary number(10),
  6  deptno number(2));

Table created.

SQL> insert into emp values(102,'SEN','CLERK',20000,2);

1 row created.

SQL> insert into emp values(107,'JAI','ACCOUNTANT',35000,2);

1 row created.

SQL> insert into emp values(108,'RAI','OFFICER',48000,1);

1 row created.

SQL> insert into emp values(100,'RENU','OPERATOR',18000,1);

1 row created.

SQL> insert into emp values(103,'RIAZ','CLERK',21000,1);

1 row created.

SQL> insert into emp values(101,'VENU','OFFICER',46000,2);

1 row created.

SQL> insert into emp values(109,'PRABU','ACCOUNTANT',36000,1);

1 row created.

SQL> insert into emp values(114,'PAUL','OPERATOR',19000,2);

1 row created.

SQL> ALTER TABLE EMP ADD CONTSRTAINT EMP_PK PRIMARY KEY(SSN);
```

```
SQL> set serveroutput on;
SQL> declare
  2  name EMP.ename%type;
  3  sal EMP.salary%type;
  4  begin
  5  select ename,salary into name,sal from EMP where ssn=&ssn;
  6  dbms_output.put_line('Name of employee is '||name);
  7  dbms_output.put_line('Salary is '||sal);
  8  end;
  9  /
Enter value for ssn: 109
old   5: select ename,salary into name,sal from EMP where ssn=&ssn;
new   5: select ename,salary into name,sal from EMP where ssn=109;
Name of employee is PRABU
Salary is 36000

PL/SQL procedure successfully completed.
```

2.

```
SQL> set serveroutput on;
SQL> begin
  2  update EMP set desgination='clerk' where ssn=&ssn;
  3  dbms_output.put_line('record got updated');
  4  end;
  5  /
Enter value for ssn: 101
old   2: update EMP set desgination='clerk' where ssn=&ssn;
new   2: update EMP set desgination='clerk' where ssn=101;
record got updated

PL/SQL procedure successfully completed.
```

3.

```
SQL> set serveroutput on;
SQL> begin
  2  delete from EMP where ssn=&ssn;
  3  dbms_output.put_line('record got deleted');
  4  end;
  5  /
Enter value for ssn: 108
old   2: delete from EMP where ssn=&ssn;
new   2: delete from EMP where ssn=108;
record got deleted

PL/SQL procedure successfully completed.
```

4.

```
SQL> set serveroutput on;
SQL> declare
  2  radius number(2);
  3  area  number(4);
  4  begin
  5  radius := &radius;
  6  area := 3.157*radius*radius;
  7  dbms_output.put_line('Area of a circle is'||area);
  8  end;
  9  /
Enter value for radius: 4
old   5: radius := &radius;
new   5: radius := 4;
Area of a circle is51

PL/SQL procedure successfully completed.
```

5.

```
SQL> set serveroutput on;
SQL> declare
  2  P number(5);
  3  N number(1);
  4  R number(2);
  5  SI number(10,2);
  6  begin
  7  P:=&P;
  8  N:=&N;
  9  R:=&R;
 10  SI:=(P*N*R)/100;
 11  dbms_output.put_line('Simple Interest is'||SI);
 12  end;
 13  /
Enter value for p: 10000
old   7: P:=&P;
new   7: P:=10000;
Enter value for n: 2
old   8: N:=&N;
new   8: N:=2;
Enter value for r: 10
old   9: R:=&R;
new   9: R:=10;
Simple Interest is2000

PL/SQL procedure successfully completed.
```

6.

```
SQL> set serveroutput on;
SQL> declare
  2  v_char varchar2(1);
  3  begin
  4  v_char:='&v_char';
  5  if(v_char='a')or(v_char='A')or
  6  (v_char='e')or(v_char='E')or
  7  (v_char='o')or(v_char='O')or
  8  (v_char='i')or(v_char='I')or
  9  (v_char='u')or(v_char='U')then
 10  dbms_output.put_line(v_char||'is a vowel');
 11  else
 12  dbms_output.put_line(v_char||'is a consonant');
 13  end if;
 14  end;
 15  /
Enter value for v_char: u
old   4: v_char:='&v_char';
new   4: v_char:='u';
uis a vowel

PL/SQL procedure successfully completed.
```

7.

```
SQL> set serveroutput on;
SQL> declare
  2  num number;
  3  begin
  4  num:=&num;
  5  if mod(num,2)=0 then
  6  dbms_output.put_line(num||''||'Is Even Number');
  7  else
  8  dbms_output.put_line(num||''||'Is Odd Number');
  9  end if;
 10  end;
 11  /
Enter value for num: 5
old   4: num:=&num;
new   4: num:=5;
5Is Odd Number

PL/SQL procedure successfully completed.
```

8.

No Question

9.

```
savepoint set sql execute commit forall merge pipe purge


SQL> set serveroutput on;
SQL> declare
  2  gender varchar2(7);
  3  answer varchar2(7);
  4  begin
  5  gender:=&gender;
  6  answer:=case
  7  when gender = 'M' then 'Male'
  8  when gender = 'F' then 'Female'
  9  end;
 10  dbms_output.put_line('The gender is : '||answer);
 11  end;
 12  /
Enter value for gender: M
old   5: gender:=&gender;
new   5: gender:=M;
gender:=M;
```

```
SQL> set serveroutput on;
SQL> declare
  2  major number;
  3  answer varchar2(10);
  4  begin
  5  major:=&major;
  6  answer:=case
  7  when major =1 then 'Major'
  8  when major =0 then 'Not Major'
  9  end;
 10  dbms_output.put_line('The person is : '||answer);
 11  end;
 12  /
Enter value for major: 1
old   5: major:=&major;
new   5: major:=1;
The person is : Major

PL/SQL procedure successfully completed.
```

```
SQL> set serveroutput on;
SQL> declare
  2  marks number;
  3  grade varchar2(2);
  4  begin
  5  marks:=&marks;
  6  grade:=case
  7  when marks>=90 then 'S'
  8  when marks<90 then 'No'
  9  end;
 10  dbms_output.put_line('The grade is S or No'||grade);
 11  end;
 12  /
Enter value for marks: 94
old   5: marks:=&marks;
new   5: marks:=94;
The grade is S or NoS

PL/SQL procedure successfully completed.
```

```
SQL> set serveroutput on;
SQL> declare
  2  age number;
  3  answer varchar2(20);
  4  begin
  5  age:=&age;
  6  answer:=case
  7  when age>=60 then 'Senior Citizen'
  8  when age<60 then 'Not Senior Citizen'
  9  end;
 10  dbms_output.put_line('The person is '||answer);
 11  end;
 12  /
Enter value for age: 67
old   5: age:=&age;
new   5: age:=67;
The person is Senior Citizen

PL/SQL procedure successfully completed.
```

```
SQL> set serveroutput on;
SQL> declare
  2  marks number;
  3  grade varchar2(2);
  4  begin
  5  marks:=&marks;
  6  grade:=case
  7  when marks>=40 then 'No'
  8  when marks<40 then 'F'
  9  end;
 10  dbms_output.put_line('The grade is F or No : '||grade);
 11  end;
 12  /
Enter value for marks: 45
old   5: marks:=&marks;
new   5: marks:=45;
The grade is F or No : No

PL/SQL procedure successfully completed.
```

10.

```
SQL> set serveroutput on;
SQL> declare
  2  a number;
  3  b number;
  4  c number;
  5  begin
  6  a:=&a;
  7  b:=&b;
  8  c:=&c;
  9  if(a>b)and(a>c)then
 10  dbms_output.put_line('The greatest number is'||a);
 11  elsif(b>a)and(b>c)then
 12  dbms_output.put_line('The greatest number is'||b);
 13  else
 14  dbms_output.put_line('The greatest number is'||c);
 15  end if;
 16  end;
 17  /
Enter value for a: 12
old   6: a:=&a;
new   6: a:=12;
Enter value for b: 10
old   7: b:=&b;
new   7: b:=10;
Enter value for c: 15
old   8: c:=&c;
new   8: c:=15;
The greatest number is15

PL/SQL procedure successfully completed.
```

11.

```
SQL> declare
  2  basicpay number(5);
  3  cadre varchar2(40);
  4  begin
  5  basicpay:=&basicpay;
  6  cadre:=
  7  case basicpay
  8  when 25000 then 'Senior Professor'
  9  when 20000 then 'Professor'
 10  when 15000 then 'Assistant Professor'
 11  end ;
 12  dbms_output.put_line('Cadre of a person is'||cadre);
 13  end;
 14  /
Enter value for basicpay: 25000
old   5: basicpay:=&basicpay;
new   5: basicpay:=25000;

PL/SQL procedure successfully completed.
```

12.

```
SQL> set serveroutput on;
SQL> declare
  2  Amount decimal;
  3  discount decimal;
  4  begin
  5  Amount:=&Amount;
  6  discount:=case
  7  when Amount >=10000 then 20
  8  when Amount between 8000 and 10000 then 15
  9  when Amount between 5000 and 8000 then 10
 10  end;
 11  Amount:= Amount-((discount/100)*Amount);
 12  dbms_output.put_line('The actual amount is : '||Amount);
 13  end;
 14  /
Enter value for amount: 8000
old   5: Amount:=&Amount;
new   5: Amount:=8000;
The actual amount is : 6800

PL/SQL procedure successfully completed.
```

13.

```
SQL> set serveroutput on;
SQL> declare
  2  CGPA number(3);
  3  grade varchar2(2);
  4  begin
  5  CGPA:=&CGPA;
  6  grade:=case
  7  when CGPA >=90 then 'S'
  8  when CGPA between 80 and 90 then 'A'
  9  when CGPA between 70 and 80 then 'B'
 10  when CGPA between 60 and 70 then 'C'
 11  when CGPA < 60 then 'D'
 12  end;
 13  dbms_output.put_line('The grade is : '||grade);
 14  end;
 15  /
Enter value for cgpa: 87
old   5: CGPA:=&CGPA;
new   5: CGPA:=87;
The grade is : A

PL/SQL procedure successfully completed.
```