18BCB0142

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PL-SQL

EX7

1.

```
SQL> set serveroutput on;
SQL> declare
  2   sal number;
  3   ssn_num number;
  4   begin
  5   ssn_num:=&ssn_num;
  6   select salary into sal from emp where ssn=ssn_num;
  7   dbms_output.put_line(sal);
  8   end;
  9   /
Enter value for ssn_num: 234
old   5: ssn_num:=&ssn_num;
new   5: ssn_num:=234;
38000

PL/SQL procedure successfully completed.

SQL>
```

```
SQL> insert into emp values('fname1','mn','lname1','1234','13-sep-2000','delhi','m',40000,'123',2);

1 row created.

SQL> set serveroutput on;
SQL> declare
  2   ssn_num number;
  3   begin
  4   ssn_num:=&ssn_num;
  5   delete from emp where ssn=ssn_num;
  6   dbms_output.put_line('record deleted');
  7   end;
  8   /
Enter value for ssn_num: 1234
old   4: ssn_num:=&ssn_num;
new   4: ssn_num:=1234;
record deleted

PL/SQL procedure successfully completed.

SQL> select ssn,fname from emp;

SSN       FNAME
--------- ---------------
123       doug
124       joyce
564       jennifer
678       john
234       ramesh
125       frankin

6 rows selected.
```

2.

EX-8

1.

```
SQL> set serveroutput on;
SQL> declare
  2  test number;
  3  begin
  4  test:=&test;
  5  if mod(test,2)=0
  6  then
  7  dbms_output.put_line(test|| 'number is even');
  8  else
  9  dbms_output.put_line(test|| 'number is odd');
 10  end if;
 11  end;
 12  /
Enter value for test: 11
old    4: test:=&test;
new    4: test:=11;
11number is odd

PL/SQL procedure successfully completed.
```

2.

```
SQL> set serveroutput on;
SQL> declare
  2  operation number;
  3  op1 number;
  4  op2 number;
  5  begin
  6  operation:=&operation;
  7  op1:=&op1;
  8  op2:=&op2;
  9  case operation
 10  when '1' then dbms_output.put_line(op1+op2);
 11  when '2' then dbms_output.put_line(op1-op2);
 12  when '3' then dbms_output.put_line(op1*op2);
 13  when '4' then dbms_output.put_line(op1/op2);
 14  else dbms_output.put_line('enter a valid operator');
 15  end case;
 16  end;
 17  /
Enter value for operation: 1
old   6: operation:=&operation;
new   6: operation:=1;
Enter value for op1: 12
old   7: op1:=&op1;
new   7: op1:=12;
Enter value for op2: 13
old   8: op2:=&op2;
new   8: op2:=13;
25

PL/SQL procedure successfully completed.

SQL> /
Enter value for operation: 2
old   6: operation:=&operation;
new   6: operation:=2;
Enter value for op1: 12
old   7: op1:=&op1;
new   7: op1:=12;
Enter value for op2: 13
old   8: op2:=&op2;
new   8: op2:=13;
-1

PL/SQL procedure successfully completed.
```

EX-9

1.

```
SQL> set serveroutput on;
SQL> declare
  2  a number;
  3  begin
  4  for a in reverse 1 .. 100 loop
  5  dbms_output.put_line('value of a: ' ||a);
  6  end loop;
  7  end;
  8  /
value of a: 100
value of a: 99
value of a: 98
value of a: 97
value of a: 96
value of a: 95
value of a: 94
value of a: 93
value of a: 92
value of a: 91
value of a: 90
value of a: 89
value of a: 88
value of a: 87
value of a: 86
value of a: 85
value of a: 84
value of a: 83
value of a: 82
value of a: 81
value of a: 80
value of a: 79
value of a: 78
value of a: 77
value of a: 76
value of a: 75
value of a: 74
value of a: 73
value of a: 72
value of a: 71
value of a: 70
value of a: 69
value of a: 68
value of a: 67
value of a: 66
value of a: 65
value of a: 64
value of a: 63
value of a: 62
value of a: 61
value of a: 60
value of a: 59
```

2.

```
SQL> set serveroutput on;
SQL> declare
  2  a number;
  3  n number;
  4  sum1 number :=0;
  5  begin
  6  n:=&n;
  7  a:=1;
  8  loop
  9  sum1 :=sum1+a;
 10  exit when (a>=n);
 11  a :=a+2;
 12  end loop;
 13  dbms_output.put_line(sum1);
 14  end;
 15  /
Enter value for n: 9
old   6: n:=&n;
new   6: n:=9;
25

PL/SQL procedure successfully completed.
```

3.

```
SQL> set serveroutput on;
SQL> declare
  2    name varchar2(15);
  3    c number;
  4    function abc(name in varchar2)
  5    return number is
  6    c number:=0;
  7    begin
  8    select count(ssn_number) into c from employee where department_number in (s
elect department_number from department where department_name=name);
  9    return c;
 10    end;
 11    begin
 12    name:='&name';
 13    c:=abc(name);
 14    dbms_output.put_line(c);
 15    end;
 16    /
Enter value for name: admin
old   12: name:='&name';
new   12: name:='admin';
2

PL/SQL procedure successfully completed.

SQL> /
Enter value for name: headq
old   12: name:='&name';
new   12: name:='headq';
2

PL/SQL procedure successfully completed.
```

4.

```
SQL> set serveroutput on;
SQL> declare
  2  num number;
  3  factorial number;
  4  function fact(x number)
  5  return number
  6  is
  7  f number;
  8  begin
  9  if x=0 then
 10  f:=1;
 11  else
 12  f:=x*fact(x-1);
 13  end if;
 14  return f;
 15  end;
 16  begin
 17  num:=&num;
 18  factorial:=fact(num);
 19  dbms_output.put_line(factorial);
 20  end;
 21  /
Enter value for num: 5
old   17: num:=&num;
new   17: num:=5;
120

PL/SQL procedure successfully completed.
```

5.

```
SQL> create or replace procedure empd (name in employee.firsdt_name%type,dname o
ut department.department_name%type)
  2  is
  3  begin
  4  select department_name into dname from department where department_number=(
select department_number from employee where firsdt_name=name);
  5  end empd;
  6  /

Procedure created.

SQL> variable department_name varchar2(15);
SQL> execute empd('joyce',:department_name);

PL/SQL procedure successfully completed.

SQL> print department_name;

DEPARTMENT_NAME
--------------------------------
new_d

SQL>
```

EX-10

1.

```
ile  Edit  Format  View  Help
eclare
 number;
 number;
irst_name emp2_2386.fname%type;
id_name emp2_2386.mname%type;
ast_name emp2_2386.lname%type;
sn emp2_2386.ssn_no%type;
irthday emp2_2386.bday%type;
d emp2_2386.address%type;
en emp2_2386.sex%type;
al emp2_2386.salary%type;
up_ssn emp2_2386.supervisor_ssn%type;
no emp2_2386.depart_no%type;

ursor emp is select * from emp2_2386;

egin
elect count(*) into e from emp2_2386;
bms_output.put_line(CHR(13)||CHR(10)||'emp2_2386');
pen emp;
or i in 1..e loop
etch emp into first_name,mid_name,last_name,ssn,birthday,ad,gen,sal,sup_ssn,dno;
bms_output.put_line(first_name || ' ' || mid_name || ' ' || last_name || ' ' || ssn || ' ' || birthday || ' ' || ad || ' ' || gen || ' ' || sal ||
nd loop;
lose emp;
nd;
```

```
SQL> @D:\varl.sql

emp2_2386
doug   E   Gilbert  123        09-JUN-68  Chennai  M  80000  NULL       1
Joyce      Pan  124       07-FEB-73  Vellore  F  70000  NULL       1
Frankin  T   Wong  125        08-DEC-72  Delhi  M  40000  123        2
Jennifer  S   Wallace  564        20-JUN-83  chennai  F  43000  123        2
John   B   smith  678        09-JAN-87  madurai  M  30000  124        1

PL/SQL procedure successfully completed.
```

2.

```
declare
e number;
d number;
first_name emp2_2386.fname%type;
mid_name emp2_2386.mname%type;
last_name emp2_2386.lname%type;
ssn emp2_2386.ssn_no%type;
birthday emp2_2386.bday%type;
ad emp2_2386.address%type;
gen emp2_2386.sex%type;
sal emp2_2386.salary%type;
sup_ssn emp2_2386.supervisor_ssn%type;
dno emp2_2386.depart_no%type;
depname depart2_2386.d_name%type;
depno depart2_2386.depart_no%type;
mssn depart2_2386.mgr_ssn%type;
msd depart2_2386.mgr_startdate%type;

cursor emp is select * from emp2_2386;
cursor dep is select * from depart2_2386;

begin
select count(*) into e from emp2_2386;
select count(*) into d from depart2_2386;
dbms_output.put_line(CHR(13)||CHR(10)||'emp2_2386');
open emp;
for i in 1..e loop
fetch emp into first_name,mid_name,last_name,ssn,birthday,ad,gen,sal,sup_ssn,dno;
dbms_output.put_line(first_name || ' ' || mid_name || ' ' || last_name || ' ' || ssn || ' ' || birthday ||
end loop;
close emp;
dbms_output.put_line(CHR(13)||CHR(10)||'depart2_2386');
open dep;
for i in 1..d loop
fetch dep into depname,depno,mssn,msd;
dbms_output.put_line(depname || ' ' || depno || ' ' || mssn || ' ' || msd );
end loop;
close dep;
end;
/
```

```
SQL> @D:\var1.sql

emp2_2386
doug    E    Gilbert    123         09-JUN-68   Chennai   M   80000   NULL         1
Joyce        Pan    124         07-FEB-73   Vellore   F   70000   NULL         1
Frankin    T    Wong   125         08-DEC-72   Delhi    M   40000   123         2
Jennifer   S    Wallace   564         20-JUN-83   chennai   F   43000   123         2
John    B    smith   678         09-JAN-87   madurai   M   30000   124         1

depart2_2386
administration   2   564         03-JAN-12
headquarter   1   678         16-DEC-14
Finance   3   234         18-MAY-13
IT   4   123         12-JUN-15

PL/SQL procedure successfully completed.

SQL>
```