

DBMS LAB PRACTICAL-7

NAME:VEDANT BHUTADA

BATCH: A4

ROLL NO: 69

AIM: Aim: To write and execute stored procedures and functions using Oracle 11g.

```
SQL> @"C:\Users\vedan\OneDrive\Desktop\sql\script_scott_schema.sql"
Building demonstration tables. Please wait.

Table dropped.

Table dropped.

Table dropped.

Table dropped.

Table dropped.

Table created.

1 row created.

1 row created.

1 row created.

1 row created.

1 row created.

1 row created.
```

1 row created.

1 row created.

1 row created.

1 row created.

1 row created.

1 row created.

1 row created.

1 row created.

Table created.

1 row created.

1 row created.

1 row created.

1 row created.

Table created.

Table created.

1 row created.

1 row created.

```
1 row created.
```

```
1 row created.
```

```
1 row created.
```

Table created.

```
1 row created.
```

Commit complete.

Demonstration table build is complete.

```
SQL> select*from emp;
```

```
SQL> set linesize 300;
```

```
SQL> select * from emp;
```

| | EMPNO | ENAME | JOB | COMM | MGR | DEPTNO | HIREDATE | SAL |
|----|-------|-------|----------|------|------|---------|----------|------|
| 80 | 7369 | SMITH | CLERK | | 7902 | 17-DEC- | | 800 |
| 81 | 7499 | ALLEN | SALESMAN | | 7698 | 20-FEB- | | 1600 |
| 81 | 7521 | WARD | SALESMAN | | 7698 | 22-FEB- | | 1250 |

| | | | |
|----|-------------|-----------|--------------|
| 81 | 7566 JONES | MANAGER | 7839 02-APR- |
| | 2975 | | 20 |
| 81 | 7654 MARTIN | SALESMAN | 7698 28-SEP- |
| | 1250 | 1400 | 30 |
| 81 | 7698 BLAKE | MANAGER | 7839 01-MAY- |
| | 2850 | | 30 |
| 81 | 7782 CLARK | MANAGER | 7839 09-JUN- |
| | 2450 | | 10 |
| 82 | 7788 SCOTT | ANALYST | 7566 09-DEC- |
| | 3000 | | 20 |
| 81 | 7839 KING | PRESIDENT | 17-NOV- |
| | 5000 | | 10 |
| 81 | 7844 TURNER | SALESMAN | 7698 08-SEP- |
| | 1500 | 0 | 30 |
| 83 | 7876 ADAMS | CLERK | 7788 12-JAN- |
| | 1100 | | 20 |

| EMPNO | ENAME | JOB | COMM | MGR | DEPTNO |
|----------|-------|-----|------|-----|--------|
| HIREDATE | | SAL | | | |

```
-  
81      7900 JAMES      CLERK      7698 03-DEC-  
      950      30
```

```
81      7902 FORD      ANALYST     7566 03-DEC-  
      3000     20
```

```
82      7934 MILLER     CLERK      7782 23-JAN-  
      1300     10
```

14 rows selected.

```
SQL> --procedures
```

```
SQL> --1
```

```
SQL> CREATE OR REPLACE PROCEDURE hello_world_proc AS  
2 BEGIN  
3   DBMS_OUTPUT.PUT_LINE('Hello World!');  
4 END;  
5 /
```

Procedure created.

```
SQL> EXEC hello_world_proc;
```

PL/SQL procedure successfully completed.

```
SQL> set serveroutput on;
```

```
SQL> EXEC hello_world_proc;
```

Hello
World!

PL/SQL procedure successfully completed.

```
SQL> --2
```

```
SQL> CREATE OR REPLACE PROCEDURE get_employee_info_proc(p_empno IN NUMBER) AS  
2   v_ename VARCHAR2(50);
```

```

3   v_sal    NUMBER;
4   v_job    VARCHAR2(50);
5 BEGIN
6   SELECT ename, sal, job
7   INTO v_ename, v_sal, v_job
8   FROM emp
9   WHERE empno = p_empno;
10
11   DBMS_OUTPUT.PUT_LINE('Employee Name: ' || v_ename || ', Salary: ' ||
v_sal || ', Job: ' || v_job);
12 END;
13 /

```

Procedure created.

```

SQL> EXEC get_employee_info_proc(7369);
Employee Name: SMITH, Salary: 800, Job:
CLERK

```

PL/SQL procedure successfully completed.

```

SQL> --3
SQL> CREATE OR REPLACE PROCEDURE get_employees_in_dept_proc(p_deptno IN
NUMBER) AS
2 BEGIN
3   FOR emp_rec IN (SELECT ename FROM emp WHERE deptno = p_deptno) LOOP
4     DBMS_OUTPUT.PUT_LINE('Employee Name: ' || emp_rec.ename);
5   END LOOP;
6 END;
7 /

```

Procedure created.

```

SQL> EXEC get_employees_in_dept_proc(20);
Employee Name:
SMITH

```

```

Employee Name:
JONES

```

Employee Name:
SCOTT

Employee Name:
ADAMS

Employee Name:
FORD

PL/SQL procedure successfully completed.

SQL> --4

SQL> CREATE OR REPLACE PROCEDURE update_salary_proc(p_empno IN NUMBER,
p_sal_increment IN NUMBER) AS

```
2 BEGIN
3   UPDATE emp
4   SET sal = sal + p_sal_increment
5   WHERE empno = p_empno;
6
7   COMMIT;
8 END;
9 /
```

Procedure created.

SQL> EXEC update_salary_proc(7369, 1000);

PL/SQL procedure successfully completed.

SQL> select*from emp;

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |
|-------|-------|-----|-----|----------|-----|------|--------|
|-------|-------|-----|-----|----------|-----|------|--------|

-

| | | | | |
|----|---------------------|------------------|----|--------------|
| 80 | 7369 SMITH 1800 | CLERK | 20 | 7902 17-DEC- |
| 81 | 7499 ALLEN 1600 | SALESMAN 300 | 30 | 7698 20-FEB- |
| 81 | 7521 WARD 1250 | SALESMAN 500 | 30 | 7698 22-FEB- |
| 81 | 7566 JONES 2975 | MANAGER | 20 | 7839 02-APR- |
| 81 | 7654 MARTIN 1250 | SALESMAN 1400 | 30 | 7698 28-SEP- |
| 81 | 7698 BLAKE 2850 | MANAGER | 30 | 7839 01-MAY- |
| 81 | 7782 CLARK 2450 | MANAGER | 10 | 7839 09-JUN- |
| 82 | 7788 SCOTT 3000 | ANALYST | 20 | 7566 09-DEC- |
| 81 | 7839 KING 5000 | PRESIDENT | 10 | 17-NOV- |
| 81 | 7844 TURNER 1500 | SALESMAN 0 | 30 | 7698 08-SEP- |


```
83      7876 ADAMS      CLERK      7788 12-JAN-
      1100      20
```

```
      EMPNO ENAME      JOB      MGR
HIREDATE      SAL      COMM      DEPTNO
```

```
-----
-----
-
```

```
81      7900 JAMES      CLERK      7698 03-DEC-
      950      30
```

```
81      7902 FORD      ANALYST      7566 03-DEC-
      3000      20
```

```
82      7934 MILLER     CLERK      7782 23-JAN-
      1300      10
```

14 rows selected.

```
SQL> --Functions
```

```
SQL> --1
```

```
SQL> CREATE OR REPLACE FUNCTION welcome_message_func(p_name IN VARCHAR2)
RETURN VARCHAR2 AS
2 BEGIN
3     RETURN 'Welcome Mr./Ms. ' || p_name;
4 END;
5 /
```

Function created.

```
SQL> SELECT welcome_message_func('SMITH') FROM dual;
```

```
WELCOME_MESSAGE_FUNC('SMITH')
```

```
-----  
-----  
-----  
-----
```

```
Welcome Mr./Ms.  
SMITH
```

```
SQL> --2
```

```
SQL> CREATE OR REPLACE FUNCTION calculate_age_func(p_dob IN DATE) RETURN  
NUMBER AS  
2 BEGIN  
3     RETURN TRUNC(MONTHS_BETWEEN(SYSDATE, p_dob) / 12);  
4 END;  
5 /
```

```
Function created.
```

```
SQL> SELECT calculate_age_func(TO_DATE('1990-01-01', 'YYYY-MM-DD')) FROM dual;
```

```
CALCULATE_AGE_FUNC(TO_DATE('1990-01-01', 'YYYY-MM-  
DD'))
```

```
-----  
-
```

33

```
SQL> CREATE OR REPLACE FUNCTION count_employees_in_dept_func(p_deptno IN  
NUMBER) RETURN NUMBER AS  
2 BEGIN  
3     DECLARE  
4         v_count NUMBER;  
5     BEGIN
```

```

6      SELECT COUNT(*)
7      INTO v_count
8      FROM emp
9      WHERE deptno = p_deptno;
10
11      RETURN v_count;
12  END;
13 END;
14 /

```

Function created.

SQL> --3

```
SQL> SELECT count_employees_in_dept_func(20) FROM dual;
```

```
COUNT_EMPLOYEES_IN_DEPT_FUNC(20)
```

```
-----
-
```

5

SQL> --4

```
SQL> CREATE OR REPLACE FUNCTION get_department_name_func(p_deptno IN NUMBER)
RETURN VARCHAR2 AS
```

```

2  BEGIN
3      DECLARE
4          v_dept_name VARCHAR2(50);
5      BEGIN
6          SELECT dname
7          INTO v_dept_name
8          FROM dept
9          WHERE deptno = p_deptno;
10
11      RETURN v_dept_name;
12  END;
13 END;
14 /

```

Function created.

```
SQL> SELECT get_department_name_func(20) FROM dual;
```

```
GET_DEPARTMENT_NAME_FUNC(20)
```

```
-----  
-----  
-----  
-----
```

```
RESEARCH
```

```
SQL> commit;
```

```
Commit complete.
```

```
SQL> spool off;
```