**PLSQL Assignment**

1. Create the following table DEPT\_<EMPNO>

|  |  |
| --- | --- |
| **Column Name** | **Data Type** |
| DEPTNO | INTEGER |
| DNAME | VARCHAR2(20) |
| LOC | VARCHAR2(20) |

ANS:CREATE TABLE DEPT(DEPTNO INTEGER,DNAME VARCHAR2(20),LOC VARCHAR2(20));

1. Create a Package DEPT\_PK that has 4 procedures and one function.

ADD\_DEPT: This procedure will take 3 arguments deptno,dname and loc and

Insert into the dept table if deptno does not exists else throw exception.

UPDATE\_DEPT: This procedure will take 3 arguments deptno,dname,loc and update the dname and loc if deptno does not exists else throw exception.

DELETE\_DEPT: This procedure takes one argument deptno, if deptno does not exists then delete the dept record else throw exception.

DISPLAY\_RECORDS: This procedure will display all the records from the table.

CHECK\_BOOLEAN: this function returns true if deptno does not exists else return false. Invoke this function in the ADD\_DEPT,UPDATE\_DEPT and DELETE\_DEPT procedures.

ANS: SOURCE CODE.

CREATE OR REPLACE PACKAGE PK1 IS

PROCEDURE ADD\_DEPT(V\_DEPTNO DEPT.DEPTNO%TYPE,V\_DNAME DEPT.DNAME%TYPE,V\_LOC DEPT.LOC%TYPE);

PROCEDURE UPDATE\_DEPT(V\_DEPTNO DEPT.DEPTNO%TYPE,V\_DNAME DEPT.DNAME%TYPE,V\_LOC DEPT.LOC%TYPE);

PROCEDURE DELETE\_DEPT(V\_DEPTNO DEPT.DEPTNO%TYPE);

PROCEDURE DISPLAY\_RECORDS;

END;

**PACKAGE BODY**

CREATE OR REPLACE PACKAGE BODY PK1 IS

FUNCTION RETURN\_BOOLEAN(V\_DEPTNO DEPT.DEPTNO%TYPE) RETURN BOOLEAN

IS

V\_COUNT BINARY\_INTEGER;

BEGIN

SELECT COUNT(\*) INTO V\_COUNT FROM DEPT WHERE DEPTNO=V\_DEPTNO;

IF V\_COUNT=0 THEN

RETURN TRUE;

ELSE

RETURN FALSE;

END IF;

END;

PROCEDURE ADD\_DEPT(V\_DEPTNO DEPT.DEPTNO%TYPE,V\_DNAME DEPT.DNAME%TYPE,V\_LOC DEPT.LOC%TYPE)

IS

V\_COUNT BINARY\_INTEGER;

BEGIN

IF NOT RETURN\_BOOLEAN(V\_DEPTNO) THEN

INSERT INTO DEPT(DEPTNO,DNAME,LOC) VALUES(V\_DEPTNO,V\_DNAME,V\_LOC);

DBMS\_OUTPUT.PUT\_LINE('REC INSERTED SUCCESSFULLY');

ELSE

RAISE\_APPLICATION\_ERROR(-20001,'UNABLE TO ADD DEPT AS DEPTNO ALREADY EXISTS');

END IF;

COMMIT;

END;

PROCEDURE UPDATE\_DEPT(V\_DEPTNO DEPT.DEPTNO%TYPE,V\_DNAME DEPT.DNAME%TYPE,V\_LOC DEPT.LOC%TYPE)

IS

BEGIN

IF NOT RETURN\_BOOLEAN(V\_DEPTNO) THEN

UPDATE DEPT SET DNAME=V\_DNAME,LOC=V\_LOC WHERE DEPTNO=V\_DEPTNO;

DBMS\_OUTPUT.PUT\_LINE('RECORD UPDATED SUCCESSFULLY');

ELSE

RAISE\_APPLICATION\_ERROR(-20002,'UNABLE TO UPDATE DEPT AS DEPTNO DOESNOT EXISTS');

END IF;

COMMIT;

END;

PROCEDURE DELETE\_DEPT(V\_DEPTNO DEPT.DEPTNO%TYPE)

IS

BEGIN

IF NOT RETURN\_BOOLEAN(V\_DEPTNO) THEN

DELETE DEPT WHERE DEPTNO=V\_DEPTNO;

DBMS\_OUTPUT.PUT\_LINE('RECORD DELETED SUCCESSFULLY');

ELSE

RAISE\_APPLICATION\_ERROR(-20003,'UNABLE TO DELETE DEPT AS DEPTNO DOESNOT EXISTS');

END IF;

COMMIT;

END;

PROCEDURE DISPLAY\_RECORDS IS

BEGIN

DECLARE

CURSOR V1 IS SELECT DEPTNO,DNAME,LOC FROM DEPT;

V\_REC V1%ROWTYPE;

BEGIN

OPEN V1;

LOOP

FETCH V1 INTO V\_REC;

EXIT WHEN V1%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE('DEPTNO ='||V\_REC.DEPTNO||' '||'DNAME ='||V\_REC.DNAME||' '||'LOC ='||V\_REC.LOC);

END LOOP;

CLOSE V1;

END;

END;

END;

/

=================================

CREATE OR REPLACE PACKAGE PK2 IS

PROCEDURE DISPLAY\_RECORDS;

END;

CREATE OR REPLACE PACKAGE BODY PK2 IS

PROCEDURE DISPLAY\_RECORDS IS

BEGIN

DECLARE

CURSOR V\_C1 IS SELECT DEPTNO,DNAME,LOC FROM DEPT;

V\_REC V\_C1%ROWTYPE;

BEGIN

DBMS\_OUTPUT.PUT\_LINE('DEPTNO DNAME LOC');

OPEN V\_C1;

LOOP

FETCH V\_C1 INTO V\_REC;

EXIT WHEN V\_C1%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE(V\_REC.DEPTNO||' '|| V\_REC.DNAME||' '||V\_REC.LOC);

END LOOP;

CLOSE V\_C1;

END;

END;

END;

/