

```

// procedure without cursor
CREATE OR REPLACE PROCEDURE EMPLOYEE2DEPARTMENT
IS
DECLARE
    IALLOC      NUMBER(2);
    ILIMIT      NUMBER(2);
    ICNT        NUMBER(2);
BEGIN
    DELETE FROM EMPLOYEE_DEPARTMENT;
    DELETE FROM DEPARTMENT_SALARY;
    FOR E IN (SELECT EMPLOYEE_ID FROM EMPLOYEES ORDER BY HIRE_DATE)
    LOOP
        FOR O IN (SELECT DEPARTMENT_ID FROM OPTIONS WHERE EMPLOYEE_ID =
E.EMPLOYEE_ID ORDER BY CHOICE)
        LOOP
            SELECT COUNT(*) INTO ICNT FROM LIMITS
WHERE DEPARTMENT_ID = O.DEPARTMENT_ID;
            ILIMIT := 0;
            IF ICNT > 0 THEN
                SELECT LIMIT INTO ILIMIT FROM LIMITS
WHERE DEPARTMENT_ID = O.DEPARTMENT_ID;
            END IF;
            SELECT COUNT(*) INTO IALLOC FROM
EMPLOYEE_DEPARTMENT WHERE DEPARTMENT_ID = O.DEPARTMENT_ID;
            IF ILIMIT = 0 OR IALLOC < ILIMIT THEN
                INSERT INTO EMPLOYEE_DEPARTMENT
VALUES(E.EMPLOYEE_ID, O.DEPARTMENT_ID);
                EXIT;
            END IF;
        END LOOP;
    END LOOP;
END;
/

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// procedure with cursor
CREATE OR REPLACE PROCEDURE EMPLOYEE2DEPARTMENT
IS
DECLARE
    CURSOR ICUR IS SELECT EMPLOYEE_ID FROM EMPLOYEES ORDER BY
HIRE_DATE;
    CURROW ICUR%ROWTYPE;
    IEMPLOYEE NUMBER(6);
    IDEPT      NUMBER(4);
    IALLOC      NUMBER(2);
    ILIMIT      NUMBER(2);
    ICNT        NUMBER(2);
BEGIN
    DELETE FROM EMPLOYEE_DEPARTMENT;

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DELETE FROM DEPARTMENT_SALARY;
OPEN ICUR;
LOOP
    FETCH ICUR INTO CURROW;
    EXIT WHEN ICUR%NOTFOUND;
    IEMPLOYEE :=
CURROW.EMPLOYEE_ID;
    FOR I IN 1..27
        LOOP
            SELECT
DEPARTMENT_ID INTO IDEPT FROM OPTIONS WHERE EMPLOYEE_ID = IEMPLOYEE
AND CHOICE = I;
            SELECT
COUNT(*) INTO ICNT FROM LIMITS WHERE DEPARTMENT_ID = IDEPT;
            ILIMIT := 0;
            IF ICNT > 0 THEN

SELECT LIMIT INTO ILIMIT FROM LIMITS WHERE DEPARTMENT_ID = IDEPT;
                END IF;
                SELECT
COUNT(*) INTO IALLOC FROM EMPLOYEE_DEPARTMENT WHERE DEPARTMENT_ID =
IDEPT;
                IF ILIMIT = 0 OR
IALLOC < ILIMIT THEN
                    INSERT
INTO EMPLOYEE_DEPARTMENT VALUES(IEMPLOYEE, IDEPT);
                    EXIT;
                END IF;
            END LOOP;
        END LOOP;
    CLOSE ICUR;
END;
/

```

// trigger

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CREATE OR REPLACE TRIGGER DEPARTMENT2SALARY
AFTER INSERT ON EMPLOYEE_DEPARTMENT
FOR EACH ROW
DECLARE
    IEMPLOYEE NUMBER(6);
    IDEPT      NUMBER(4);
    ISALARY    NUMBER(8, 2);
    ICNT       NUMBER(2);
BEGIN
    IEMPLOYEE := :NEW.EMPLOYEE_ID;
    IDEPT := :NEW.DEPARTMENT_ID;

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        SELECT COUNT(*) INTO ICNT FROM DEPARTMENT_SALARY WHERE
DEPARTMENT_ID = IDEPT;
        SELECT SALARY INTO ISALARY FROM EMPLOYEES WHERE EMPLOYEE_ID =
IEMPLOYEE;
        IF ICNT > 0 THEN
            UPDATE DEPARTMENT_SALARY SET TOTAL_SALARY = TOTAL_SALARY
+ ISALARY WHERE DEPARTMENT_ID = IDEPT;
        ELSE
            INSERT INTO DEPARTMENT_SALARY VALUES (IDEPT, ISALARY);
        END IF;
END;
/
```