**//1**

CREATE TABLE DEPT (

DEPT\_NO NUMBER(2) PRIMARY KEY,

DEPT\_NAME VARCHAR2(20) UNIQUE,

HOD VARCHAR2(20)

);

CREATE TABLE EMPLOYEE (

EMP\_NO NUMBER(5) PRIMARY KEY,

EMP\_NAME VARCHAR2(20),

SAL NUMBER(6) CHECK (SAL >= 1000),

DEPT\_NO NUMBER(2),

DJ DATE,

DEG VARCHAR2(20),

CONSTRAINT FK\_DEPT FOREIGN KEY (DEPT\_NO) REFERENCES DEPT(DEPT\_NO)

);

CREATE TABLE LEAVE (

LEAVE\_TYPE CHAR(1) PRIMARY KEY,

LEAVE\_NAME VARCHAR(20),

NO\_LEAVES NUMBER(2) CHECK (NO\_LEAVES <= 20)

);

CREATE TABLE EMP\_LEAVE (

EMP\_NO NUMBER(5),

LEAVE\_TYPE CHAR(1) NOT NULL,

START\_DATE DATE,

END\_DATE DATE,

PRIMARY KEY (EMP\_NO, START\_DATE),

CONSTRAINT FK\_EMP\_NO FOREIGN KEY (EMP\_NO) REFERENCES EMPLOYEE(EMP\_NO),

CONSTRAINT FK\_LEAVE\_TYPE FOREIGN KEY (LEAVE\_TYPE) REFERENCES LEAVE(LEAVE\_TYPE),

CONSTRAINT CHECK\_END\_DATE CHECK (END\_DATE >= START\_DATE)

);

**//2**

INSERT INTO DEPT (DEPT\_NO, DEPT\_NAME, HOD) VALUES (1, 'MAINFRAME', 'GEORGE');

INSERT INTO DEPT (DEPT\_NO, DEPT\_NAME, HOD) VALUES (2, 'CLIENT/SERVER', 'BILL');

INSERT INTO DEPT (DEPT\_NO, DEPT\_NAME, HOD) VALUES (3, 'SYSTEMS', 'GARRY');

INSERT INTO DEPT (DEPT\_NO, DEPT\_NAME, HOD) VALUES (4, 'INTERNET', 'PAUL');

INSERT INTO DEPT (DEPT\_NO, DEPT\_NAME, HOD) VALUES (5, 'ACCOUNTS', 'ANDY');

INSERT INTO EMPLOYEE (EMP\_NO, EMP\_NAME, SAL, DEPT\_NO, DJ, DEG) VALUES (101, 'GEORGE', 12000, 1, '12-JUL-2001', 'PM');

INSERT INTO EMPLOYEE (EMP\_NO, EMP\_NAME, SAL, DEPT\_NO, DJ, DEG) VALUES (102, 'BILL', 12000, 2, '14-JUL-2001', 'PM');

INSERT INTO EMPLOYEE (EMP\_NO, EMP\_NAME, SAL, DEPT\_NO, DJ, DEG) VALUES (103, 'GARRY', 15000, 3, '1-JUL-2001', 'PM');

INSERT INTO EMPLOYEE (EMP\_NO, EMP\_NAME, SAL, DEPT\_NO, DJ, DEG) VALUES (104, 'PAUL', 11000, 4, '2-JUL-2001', 'PL');

INSERT INTO EMPLOYEE (EMP\_NO, EMP\_NAME, SAL, DEPT\_NO, DJ, DEG) VALUES (105, 'ANDY', 7000, 5, '25-JUL-2001', 'AM');

INSERT INTO EMPLOYEE (EMP\_NO, EMP\_NAME, SAL, DEPT\_NO, DJ, DEG) VALUES (106, 'KEATS', 10000, 1, '17-JUL-2001', 'SA');

INSERT INTO EMPLOYEE (EMP\_NO, EMP\_NAME, SAL, DEPT\_NO, DJ, DEG) VALUES (107, 'JOEL', 8000, 2, '15-JUL-2001', 'SP');

INSERT INTO EMPLOYEE (EMP\_NO, EMP\_NAME, SAL, DEPT\_NO, DJ, DEG) VALUES (108, 'ROBERTS', 7500, 2, '15-JUL-2001', 'PRO');

INSERT INTO EMPLOYEE (EMP\_NO, EMP\_NAME, SAL, DEPT\_NO, DJ, DEG) VALUES (109, 'HERBERT', 8000, 4, '22-JUL-2001', 'SA');

INSERT INTO EMPLOYEE (EMP\_NO, EMP\_NAME, SAL, DEPT\_NO, DJ, DEG) VALUES (110, 'MICHAEL', 6000, 4, '15-JUL-2001', 'PRO');

INSERT INTO LEAVE (LEAVE\_TYPE, LEAVE\_NAME, NO\_LEAVES) VALUES ('C', 'CASUAL', 15);

INSERT INTO LEAVE (LEAVE\_TYPE, LEAVE\_NAME, NO\_LEAVES) VALUES ('E', 'EARNING', 5);

INSERT INTO LEAVE (LEAVE\_TYPE, LEAVE\_NAME, NO\_LEAVES) VALUES ('O', 'OVERTIME', 5);

INSERT INTO LEAVE (LEAVE\_TYPE, LEAVE\_NAME, NO\_LEAVES) VALUES ('S', 'SICK', 15);

INSERT INTO EMP\_LEAVE (EMP\_NO, LEAVE\_TYPE, START\_DATE, END\_DATE) VALUES (102, 'S', '23-JUL-2001', '25-JUL-2001');

INSERT INTO EMP\_LEAVE (EMP\_NO, LEAVE\_TYPE, START\_DATE, END\_DATE) VALUES (104, 'C', '24-JUL-2001', '25-JUL-2001');

INSERT INTO EMP\_LEAVE (EMP\_NO, LEAVE\_TYPE, START\_DATE, END\_DATE) VALUES (104, 'S', '28-JUL-2001', '29-JUL-2001');

INSERT INTO EMP\_LEAVE (EMP\_NO, LEAVE\_TYPE, START\_DATE, END\_DATE) VALUES (101, 'C', '27-JUL-2001', '28-JUL-2001');

INSERT INTO EMP\_LEAVE (EMP\_NO, LEAVE\_TYPE, START\_DATE, END\_DATE) VALUES (106, 'O', '28-JUL-2001', '29-JUL-2001');

INSERT INTO EMP\_LEAVE (EMP\_NO, LEAVE\_TYPE, START\_DATE, END\_DATE) VALUES (109, 'C', '01-AUG-2001', '02-AUG-2001');

INSERT INTO EMP\_LEAVE (EMP\_NO, LEAVE\_TYPE, START\_DATE, END\_DATE) VALUES (103, 'C', '02-AUG-2001', '05-AUG-2001');

INSERT INTO EMP\_LEAVE (EMP\_NO, LEAVE\_TYPE, START\_DATE, END\_DATE) VALUES (105, 'S', '17-AUG-2001', NULL);

INSERT INTO EMP\_LEAVE (EMP\_NO, LEAVE\_TYPE, START\_DATE, END\_DATE) VALUES (108, 'S', '23-AUG-2001', NULL);

**//3a**

SELECT \*

FROM EMPLOYEE

WHERE DJ >= SYSDATE - 15;

**//3b**

SELECT E.\*

FROM EMPLOYEE E

JOIN EMP\_LEAVE EL ON E.EMP\_NO = EL.EMP\_NO

GROUP BY E.EMP\_NO, E.EMP\_NAME, E.SAL, E.DEPT\_NO, E.DJ, E.DEG

HAVING SUM(CASE WHEN EL.LEAVE\_TYPE = 'S' THEN EL.END\_DATE - EL.START\_DATE + 1 ELSE 0 END) > 10

OR SUM(EL.END\_DATE - EL.START\_DATE + 1) > 15;

**//3c**

UPDATE EMPLOYEE

SET DEPT\_NO = (SELECT DEPT\_NO FROM DEPT WHERE DEPT\_NAME = 'INTERNET')

WHERE EMP\_NO = 104;

**//3d**

DELETE FROM EMP\_LEAVE

WHERE EMP\_NO = (SELECT MAX(EMP\_NO) FROM EMPLOYEE);

**//3e**

UPDATE EMPLOYEE

SET DEPT\_NO = (SELECT DEPT\_NO FROM DEPT WHERE DEPT\_NAME = 'INTERNET')

WHERE EMP\_NO = 104;

**//4**

CREATE VIEW vw\_ManyLeavesEmp AS

    SELECT EMP\_NO

    FROM EMP\_LEAVE

    WHERE TO\_CHAR(SYSDATE, 'MON') = TO\_CHAR(START\_DATE, 'MON')

      AND TO\_CHAR(SYSDATE, 'YY') = TO\_CHAR(START\_DATE, 'YY')

    GROUP BY EMP\_NO

    HAVING COUNT(\*) >= 2;

**//5**

CREATE VIEW vw\_LeavesPriodMonth AS

    SELECT \*

    FROM EMP\_LEAVE

    WHERE START\_DATE >= TRUNC(ADD\_MONTHS(SYSDATE, -1), 'MON')

            AND START\_DATE < TRUNC(SYSDATE,'MON')

             AND (END\_DATE IS NULL OR END\_DATE >= SYSDATE);