SQL> --

SQL> -- ---------------------------------------------------------

SQL> -- COMP 2714

SQL> -- SET 2D

SQL> -- Assignment Asn01

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SQL> -- ---------------------------------------------------------

SQL> ALTER SESSION SET NLS\_DATE\_FORMAT='YYYY-MM-DD';

Session altered.

SQL> --

SQL> -- Q1. Dropping all tables

SQL> DROP TABLE Booking;

Table dropped.

SQL> DROP TABLE Guest;

Table dropped.

SQL> DROP TABLE Room;

Table dropped.

SQL> DROP TABLE Hotel;

Table dropped.

SQL> DROP TABLE OldBooking;

Table dropped.

SQL> -- Q2. Creating Hotel table.

SQL> CREATE TABLE Hotel

2 (hotelNo CHAR(10) NOT NULL

3 ,hotelName VARCHAR(30) NOT NULL

4 ,city VARCHAR(15) NOT NULL

5 ,CONSTRAINT PKHotel PRIMARY KEY (hotelNo)

6 );

Table created.

SQL> -- Q2. Creating Room table.

SQL> CREATE TABLE Room

2 (roomNo CHAR(10) NOT NULL

3 ,hotelNo CHAR(10) NOT NULL

4 ,type VARCHAR(15) NOT NULL

5 ,price DECIMAL(10) NOT NULL

6 ,CONSTRAINT chk\_Type

7 CHECK (type IN ('Single', 'Double', 'Family'))

8 ,CONSTRAINT chk\_Price

9 CHECK (price BETWEEN 10 AND 100)

10 ,CONSTRAINT chk\_RoomNo

11 CHECK (roomNo BETWEEN 1 AND 100)

12 ,CONSTRAINT PKRoom PRIMARY KEY (roomNo, hotelNo)

13 ,CONSTRAINT FKHotelNo FOREIGN KEY (hotelNo)

14 REFERENCES Hotel (hotelNo)

15 );

Table created.

SQL> -- Q3. Creating Guest table.

SQL> CREATE TABLE Guest

2 (guestNo CHAR(10) NOT NULL

3 ,guestName VARCHAR(30) NOT NULL

4 ,guestAddress VARCHAR(30) NOT NULL

5 ,CONSTRAINT PKGuest PRIMARY KEY (guestNo)

6 );

Table created.

SQL> -- Q3. Creating Booking table.

SQL> CREATE TABLE Booking

2 (hotelNo CHAR(10) NOT NULL

3 ,guestNo CHAR(10) NOT NULL

4 ,dateFrom DATE NOT NULL

5 ,dateTo VARCHAR(10) NOT NULL

6 ,roomNo CHAR(10) NOT NULL

7 ,CONSTRAINT PKBooking PRIMARY KEY (hotelNo, guestNo, dateFrom)

8 ,CONSTRAINT FKBHotelNo FOREIGN KEY (hotelNo, roomNo)

9 REFERENCES Room (hotelNo, roomNo)

10 ,CONSTRAINT FKGuestNo FOREIGN KEY (guestNo)

11 REFERENCES Guest (guestNo)

12 );

Table created.

SQL> -- Q4. Inserting sample data into the Hotel table.

SQL> INSERT INTO Hotel

2 VALUES ('H0001', 'The Villegas Inn', 'Bermuda');

1 row created.

SQL> INSERT INTO Hotel

2 VALUES ('H0002', 'The Lowenstein Inn', 'Caracas');

1 row created.

SQL> INSERT INTO Hotel

2 VALUES ('H0003', 'The Lam Motel', 'Bangkok');

1 row created.

SQL> INSERT INTO Hotel

2 VALUES ('H0004', 'The NesvaderaHu Joint Hotel', 'Surrey');

1 row created.

SQL> -- Q4. Inserting sample data into the Room table.

SQL> INSERT INTO Room

2 VALUES ('001', 'H0001', 'Single', 50);

1 row created.

SQL> INSERT INTO Room

2 VALUES ('056', 'H0003', 'Double', 75);

1 row created.

SQL> INSERT INTO Room

2 VALUES ('100', 'H0004', 'Family', 66);

1 row created.

SQL> INSERT INTO Room

2 VALUES ('075', 'H0002', 'Double', 20);

1 row created.

SQL> -- Q4. Inserting sample data into the Guest table.

SQL> INSERT INTO Guest

2 VALUES ('G001', 'Wilson Hu', '123 Hampton Pl');

1 row created.

SQL> INSERT INTO Guest

2 VALUES ('G002', 'Angus Lam', '9.75 Platform');

1 row created.

SQL> INSERT INTO Guest

2 VALUES ('G003', 'Luli Lowenstein', '654 Columbia Road');

1 row created.

SQL> INSERT INTO Guest

2 VALUES ('G004', 'Yashar Nesvaderani', '666 Fail St');

1 row created.

SQL> -- Q4. Inserting sample data into the Booking table.

SQL> INSERT INTO Booking

2 VALUES ('H0003', 'G002', TO\_DATE('2016-08-08'), TO\_DATE('2016-09-08'), '056');

1 row created.

SQL> INSERT INTO Booking

2 VALUES ('H0001', 'G004', TO\_DATE('2016-10-05'), TO\_DATE('2016-10-20'), '001');

1 row created.

SQL> INSERT INTO Booking

2 VALUES ('H0002', 'G003', TO\_DATE('2017-01-03'), TO\_DATE('2017-01-06'), '075');

1 row created.

SQL> INSERT INTO Booking

2 VALUES ('H0004', 'G001', TO\_DATE('2016-08-08'), TO\_DATE('2016-09-10'), '100');

1 row created.

SQL> --

SQL> -- Displaying the tables and their current data.

SQL> SELECT \*

2 FROM Hotel;

HOTELNO HOTELNAME CITY

---------- ------------------------------ ---------------

H0001 The Villegas Inn Bermuda

H0002 The Lowenstein Inn Caracas

H0003 The Lam Motel Bangkok

H0004 The NesvaderaHu Joint Hotel Surrey

SQL> --

SQL> SELECT \*

2 FROM Room;

ROOMNO HOTELNO TYPE PRICE

---------- ---------- --------------- ----------

001 H0001 Single 50

056 H0003 Double 75

100 H0004 Family 66

075 H0002 Double 20

SQL> --

SQL> SELECT \*

2 FROM Guest;

GUESTNO GUESTNAME GUESTADDRESS

---------- ------------------------------ ------------------------------

G001 Wilson Hu 123 Hampton Pl

G002 Angus Lam 9.75 Platform

G003 Luli Lowenstein 654 Columbia Road

G004 Yashar Nesvaderani 666 Fail St

SQL> --

SQL> SELECT \*

2 FROM Booking;

HOTELNO GUESTNO DATEFROM DATETO ROOMNO

---------- ---------- ---------- ---------- ----------

H0003 G002 2016-08-08 2016-09-08 056

H0001 G004 2016-10-05 2016-10-20 001

H0002 G003 2017-01-03 2017-01-06 075

H0004 G001 2016-08-08 2016-09-10 100

SQL> -- Q5a. Dropping the check constraint for Room table.

SQL> ALTER TABLE Room

2 DROP CONSTRAINT chk\_type;

Table altered.

SQL> -- Q5a. Modifying the check constraint for Room so it accepts 'Deluxe'.

SQL> ALTER TABLE Room

2 ADD CONSTRAINT chk\_Type

3 CHECK (type IN ('Deluxe', 'Single', 'Double', 'Family'));

Table altered.

SQL> -- Q5b. Adding a new column called Discount. Default 0, and must be between 0 and 30.

SQL> ALTER TABLE Room

2 ADD discount DECIMAL(5) DEFAULT 0 NOT NULL;

Table altered.

SQL> ALTER TABLE Room

2 ADD CONSTRAINT chk\_Discount

3 CHECK (discount BETWEEN 0 AND 30);

Table altered.

SQL> -- Q6a. Increasing the price of 'Double' rooms in a hotel of our choice by 15%.

SQL> UPDATE Room

2 SET price = price \* 1.15

3 WHERE hotelNo = 'H0002'

4 AND type = 'Double';

1 row updated.

SQL> -- Q6b. Modifying the booking for a guest that arrived early.

SQL> UPDATE Booking

2 SET dateFrom = TO\_DATE('2016-07-28'), dateTo = TO\_DATE('2016-10-05')

3 WHERE guestNo = 'G001';

1 row updated.

SQL> -- Q7a. Creating archive table for Booking table.

SQL> CREATE TABLE OldBooking

2 (hotelNo CHAR(10) NOT NULL

3 ,guestNo CHAR(10) NOT NULL

4 ,dateFrom VARCHAR(10) NOT NULL

5 ,dateTo VARCHAR(10) NOT NULL

6 ,roomNo CHAR(10) NOT NULL

7 ,CONSTRAINT PKOldBooking PRIMARY KEY (hotelNo, guestNo, dateFrom, roomNo)

8 );

Table created.

SQL> -- Q7b. Copying rows in Booking table with dates before 2017-01-01 to OldBooking table.

SQL> INSERT INTO OldBooking

2 SELECT \*

3 FROM Booking

4 WHERE dateTo < TO\_DATE('2017-01-01');

3 rows created.

SQL> -- Q7c. Deleting rows in Booking table that have dates before 2017-01-01.

SQL> DELETE FROM Booking

2 WHERE dateTo <= TO\_DATE('2017-01-01');

3 rows deleted.

SQL> --

SQL> -- Display all tables after all changes are made

SQL> SELECT \*

2 FROM Hotel;

HOTELNO HOTELNAME CITY

---------- ------------------------------ ---------------

H0001 The Villegas Inn Bermuda

H0002 The Lowenstein Inn Caracas

H0003 The Lam Motel Bangkok

H0004 The NesvaderaHu Joint Hotel Surrey

SQL> --

SQL> SELECT \*

2 FROM Room;

ROOMNO HOTELNO TYPE PRICE DISCOUNT

---------- ---------- --------------- ---------- ----------

001 H0001 Single 50 0

056 H0003 Double 75 0

100 H0004 Family 66 0

075 H0002 Double 23 0

SQL> --

SQL> SELECT \*

2 FROM Guest;

GUESTNO GUESTNAME GUESTADDRESS

---------- ------------------------------ ------------------------------

G001 Wilson Hu 123 Hampton Pl

G002 Angus Lam 9.75 Platform

G003 Luli Lowenstein 654 Columbia Road

G004 Yashar Nesvaderani 666 Fail St

SQL> --

SQL> SELECT \*

2 FROM Booking;

HOTELNO GUESTNO DATEFROM DATETO ROOMNO

---------- ---------- ---------- ---------- ----------

H0002 G003 2017-01-03 2017-01-06 075

SQL> --

SQL> SELECT \*

2 FROM OldBooking;

HOTELNO GUESTNO DATEFROM DATETO ROOMNO

---------- ---------- ---------- ---------- ----------

H0003 G002 2016-08-08 2016-09-08 056

H0001 G004 2016-10-05 2016-10-20 001

H0004 G001 2016-07-28 2016-10-05 100

SQL> --

SQL> SPOOL OFF;