**Name: Tina Borundia**

**Roll no.: 16**

**Lab 01**

**Creating Hotel Table**

SQL> CREATE TABLE Hotel(

2 Hotel\_No NUMBER(3) NOT NULL,

3 Name VARCHAR(20) NOT NULL,

4 City VARCHAR(15) NOT NULL,

5 CONSTRAINT Hotel\_PK\_HotelNo PRIMARY KEY(Hotel\_No)

6 );

Table created.

**Creating Room Table**

SQL> CREATE TABLE Room(

2 Hotel\_No NUMBER(3),

3 Room\_No NUMBER,

4 Type CHAR(1),

5 Price NUMBER(7,2) NOT NULL,

6 CONSTRAINT Room\_FK\_Hotel\_HotelNo FOREIGN KEY (Hotel\_No) REFERENCES Hotel(Hotel\_No),

7 CONSTRAINT Room\_PK\_NO PRIMARY KEY(Hotel\_No,Room\_No),

8 CONSTRAINT Room\_CK\_Type CHECK (TYPE IN ('A','N'))

9 );

Table created.

**Creating Guest Table**

SQL> CREATE TABLE Guest(

2 Guest\_No VARCHAR(5),

3 Name VARCHAR(15) NOT NULL,

4 dob DATE,

5 t\_date date DEFAULT sysdate,

6 age AS (TRUNC (MONTHS\_BETWEEN(t\_date,dob)/12)) VIRTUAL,

7 Gender CHAR(1) NOT NULL,

8 Phone\_No NUMERIC(10),

9 Adhar\_No VARCHAR(10),

10 CONSTRAINT Guest\_PK\_GuestNo PRIMARY KEY(Guest\_No),

11 CONSTRAINT Guest\_CK\_age CHECK (AGE>18),

12 CONSTRAINT Guest\_CK\_gender CHECK (GENDER IN ('M','F')),

13 CONSTRAINT Guest\_UQ\_PhoneNo UNIQUE(Phone\_No),

14 CONSTRAINT Guest\_CK\_PhoneNo CHECK (length(Phone\_No)=10)

15 );

Table created.

**Creating Booking Table**

SQL> CREATE TABLE Booking(

2 Hotel\_No NUMBER(3),

3 Guest\_No VARCHAR(5),

4 Room\_No NUMBER,

5 Date\_From DATE,

6 Date\_To DATE,

7 temp\_date date DEFAULT sysdate,

8 CONSTRAINT Booking\_FK\_Hotel\_HotelNo FOREIGN KEY (Hotel\_No) REFERENCES Hotel(Hotel\_No),

9 CONSTRAINT Booking\_FK\_Guest\_GuestNo FOREIGN KEY (Guest\_No) REFERENCES Guest(Guest\_No),

10 CONSTRAINT Booking\_FK\_Room\_RoomNo FOREIGN KEY (Hotel\_No,Room\_No) REFERENCES Room(Hotel\_No,Room\_No),

11 CONSTRAINT Booking\_CK\_Date CHECK (Date\_From<=Date\_To AND DATE\_FROM>=temp\_date)

12 );

Table created.

**Table Description**

SQL> desc Hotel

Name Null? Type

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

HOTEL\_NO NOT NULL NUMBER(3)

NAME NOT NULL VARCHAR2(20)

CITY NOT NULL VARCHAR2(15)

SQL> desc Room

Name Null? Type

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

HOTEL\_NO NOT NULL NUMBER(3)

ROOM\_NO NOT NULL NUMBER

TYPE CHAR(1)

PRICE NOT NULL NUMBER(7,2)

SQL> desc Guest

Name Null? Type

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

GUEST\_NO NOT NULL VARCHAR2(5)

NAME NOT NULL VARCHAR2(15)

DOB DATE

T\_DATE DATE

AGE NUMBER

GENDER NOT NULL CHAR(1)

PHONE\_NO NUMBER(10)

ADHAR\_NO VARCHAR2(10)

SQL> desc Booking

Name Null? Type

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

HOTEL\_NO NUMBER(3)

GUEST\_NO VARCHAR2(5)

ROOM\_NO NUMBER

DATE\_FROM DATE

DATE\_TO DATE

TEMP\_DATE DATE

**Insertion in Hotel Table**

SQL> INSERT INTO Hotel (HOTEL\_NO, NAME, CITY) VALUES (111, 'Empire Hotel', 'Delhi');

1 row created.

SQL> INSERT INTO Hotel (HOTEL\_NO, NAME, CITY) VALUES (235, 'Park Palace', 'Delhi');

1 row created.

SQL> INSERT INTO Hotel (HOTEL\_NO, NAME, CITY) VALUES (423, 'Brownstone Hotel', 'Mumbai');

1 row created.

SQL> INSERT INTO Hotel (HOTEL\_NO, NAME, CITY) VALUES (498, 'James Plaza', 'Mumbai');

1 row created.

**Insertion in Room table**

SQL> INSERT INTO Room (HOTEL\_NO,ROOM\_NO,TYPE,PRICE) VALUES (111,313,'A',1450);

1 row created.

SQL> INSERT INTO Room (HOTEL\_NO,ROOM\_NO,TYPE,PRICE) VALUES (111,412,'N',1450);

1 row created.

SQL> INSERT INTO Room (HOTEL\_NO,ROOM\_NO,TYPE,PRICE) VALUES (235,1267,'N',1750);

1 row created.

SQL> INSERT INTO Room (HOTEL\_NO,ROOM\_NO,TYPE,PRICE) VALUES (235,1289,'N',1950);

1 row created.

**Insertion in Guest Table**

SQL> INSERT INTO Guest (GUEST\_NO,NAME,DOB,GENDER,PHONE\_NO,ADHAR\_NO) VALUES (256,'Siddhi Gupta', '22-October-2004','F',9878121312,'7489374377');

1 row created.

**Insertion in Booking Table**

SQL> INSERT INTO Booking (HOTEL\_NO,GUEST\_NO,DATE\_FROM,DATE\_TO,ROOM\_NO) VALUES (111,256,'15-August-2024','20-August-2024',313);

1 row created.

**Null Value Insertion**

SQL> INSERT INTO Hotel (HOTEL\_NO,NAME,CITY) VALUES (111,'','Delhi');

INSERT INTO Hotel (HOTEL\_NO,NAME,CITY) VALUES (111,'','Delhi')

\*

ERROR at line 1:

ORA-01400: cannot insert NULL into ("RIYA"."HOTEL"."NAME")

**Unique Value Insertion**

SQL> INSERT INTO Guest (GUEST\_NO,NAME,DOB,GENDER,PHONE\_NO,ADHAR\_NO) VALUES (256,'Riya', '22-October-2004','F',9878121312,'7489374377');

INSERT INTO Guest (GUEST\_NO,NAME,DOB,GENDER,PHONE\_NO,ADHAR\_NO) VALUES (256,'Riya', '22-October-2004','F',9878121312,'7489374377')

\*

ERROR at line 1:

ORA-00001: unique constraint (RIYA.GUEST\_PK\_GUESTNO) violated

**Referential Integrity Constraint**

SQL> INSERT INTO Room (HOTEL\_NO,ROOM\_NO,TYPE,PRICE) VALUES (313,111,'',1450);

INSERT INTO Room (HOTEL\_NO,ROOM\_NO,TYPE,PRICE) VALUES (313,111,'',1450)

\*

ERROR at line 1:

ORA-02291: integrity constraint (RIYA.ROOM\_FK\_HOTEL\_HOTELNO) violated - parent

key not found

**Age Violation**

SQL> INSERT INTO Guest (GUEST\_NO,NAME,DOB,GENDER,PHONE\_NO,ADHAR\_NO) VALUES (367,'Smruti Agrawal', '22-October-2022','F',9878121312,'7489374377');

INSERT INTO Guest (GUEST\_NO,NAME,DOB,GENDER,PHONE\_NO,ADHAR\_NO) VALUES (367,'Smruti Agrawal', '22-October-2022','F',9878121312,'7489374377')

\*

ERROR at line 1:

ORA-02290: check constraint (RIYA.GUEST\_CK\_AGE) violated

**Check Constraint Violation for Gender**

SQL> INSERT INTO Guest (GUEST\_NO,NAME,DOB,GENDER,PHONE\_NO,ADHAR\_NO) VALUES (367,'Smruti Agrawal', '22-October-2022','m',987812132,'7489374377');

INSERT INTO Guest (GUEST\_NO,NAME,DOB,GENDER,PHONE\_NO,ADHAR\_NO) VALUES (367,'Smruti Agrawal', '22-October-2022','m',987812132,'7489374377')

\*

ERROR at line 1:

ORA-02290: check constraint (RIYA.GUEST\_CK\_PHONENO) violated

**View User Conatraints**

SQL> SELECT TABLE\_NAME,CONSTRAINT\_NAME,CONSTRAINT\_TYPE FROM USER\_CONSTRAINTS WHERE TABLE\_NAME IN ('HOTEL');

TABLE\_NAME CONSTRAINT\_NAME C

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

HOTEL SYS\_C0011106 C

HOTEL SYS\_C0011107 C

HOTEL SYS\_C0011108 C

HOTEL HOTEL\_PK\_HOTELNO P

SQL> SELECT TABLE\_NAME,CONSTRAINT\_NAME,CONSTRAINT\_TYPE FROM USER\_CONSTRAINTS WHERE TABLE\_NAME IN ('ROOM');

TABLE\_NAME CONSTRAINT\_NAME C

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

ROOM SYS\_C0011110 C

ROOM ROOM\_CK\_TYPE C

ROOM ROOM\_PK\_NO P

ROOM ROOM\_FK\_HOTEL\_HOTELNO R

SQL> SELECT TABLE\_NAME,CONSTRAINT\_NAME,CONSTRAINT\_TYPE FROM USER\_CONSTRAINTS WHERE TABLE\_NAME IN ('BOOKING');

TABLE\_NAME CONSTRAINT\_NAME C

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

BOOKING BOOKING\_CK\_DATE C

BOOKING BOOKING\_FK\_HOTEL\_HOTELNO R

BOOKING BOOKING\_FK\_GUEST\_GUESTNO R

BOOKING BOOKING\_FK\_ROOM\_ROOMNO R

SQL> SELECT TABLE\_NAME,CONSTRAINT\_NAME,CONSTRAINT\_TYPE FROM USER\_CONSTRAINTS WHERE TABLE\_NAME IN ('GUEST');

TABLE\_NAME CONSTRAINT\_NAME C

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

GUEST GUEST\_CK\_GENDER C

GUEST GUEST\_CK\_PHONENO C

GUEST GUEST\_PK\_GUESTNO P

GUEST GUEST\_UQ\_PHONENO U

GUEST SYS\_C0011114 C

GUEST SYS\_C0011115 C

GUEST GUEST\_CK\_AGE C

7 rows selected.