HOTEL MANAGEMENT SYSTEM

SECOND REVIEW REPORT

Submitted by

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Prepared For

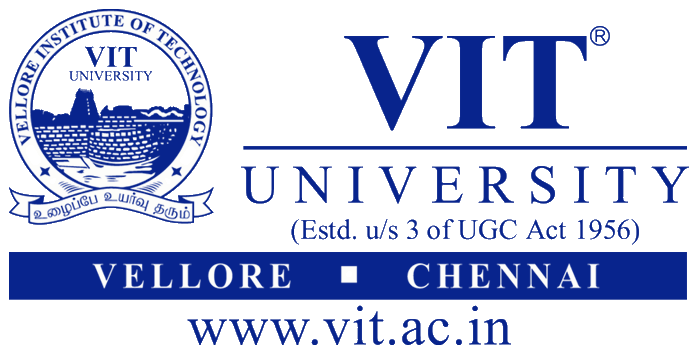
**DATABASE SYSTEMS (ITE1003) – PROJECT COMPONENT**

Submitted To

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# Introduction

Hotels are the major generators of tourist. Hotel Management involves a combination of various skills like management, marketing, human resource development, financial development, dexterity, etc.

Activities in the area of Hotel Management involves ensuring that all the operations like food and drinks, accommodation including the maintenance of finance and personal details of all the employee are well served.

The reservations, registrations, accounts, services, payment mode, extra activities are to be handled and maintained carefully and in an effective way to satisfy the guest as well as to check there is no leakage of profit to the hotel. The tool required for that is a strong database.

# Key Contacts and Stakeholders

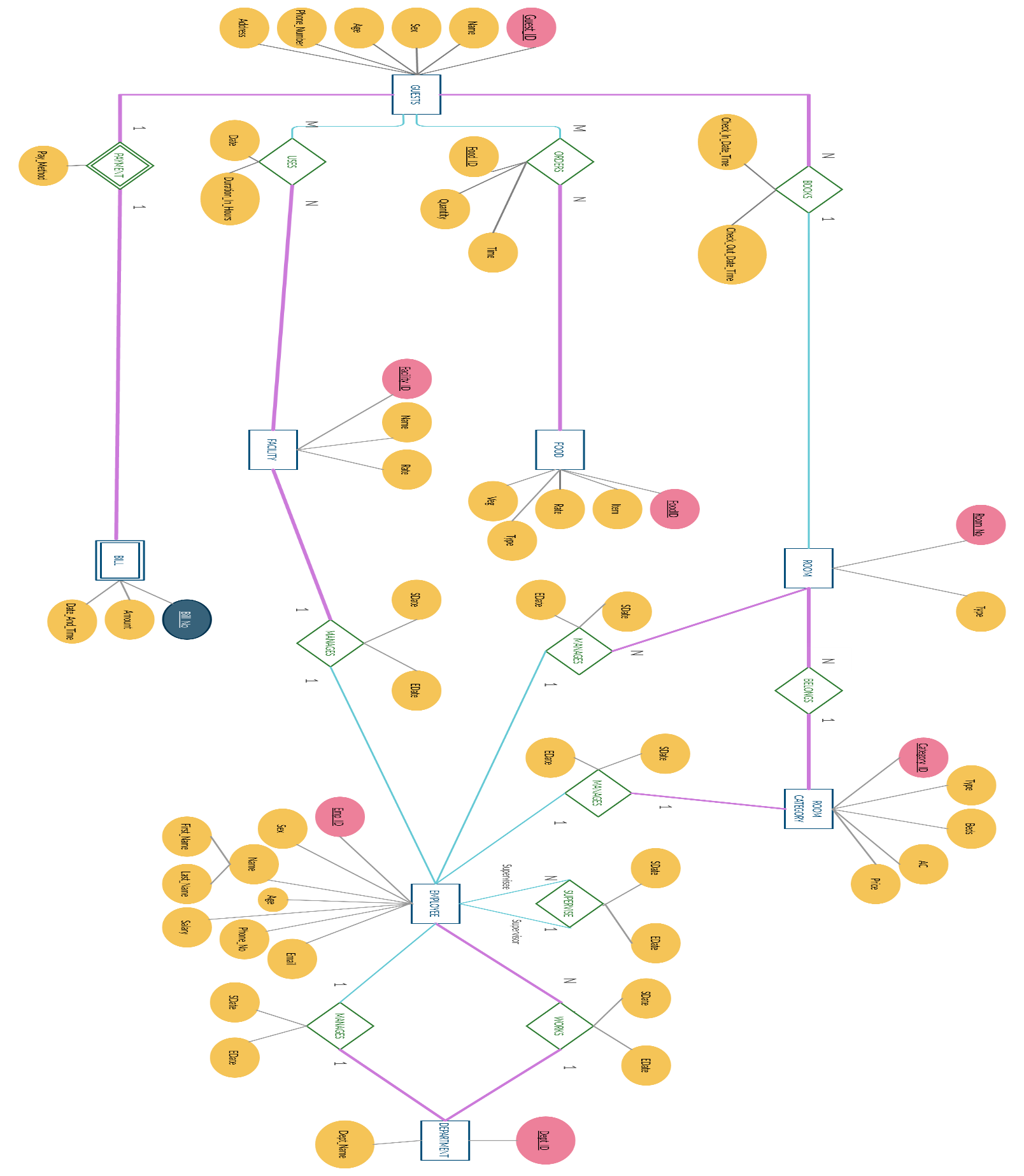
|  |  |  |
| --- | --- | --- |
| **Name** | **Registration Number** | **Phone Number** |
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# Project Software Requirements

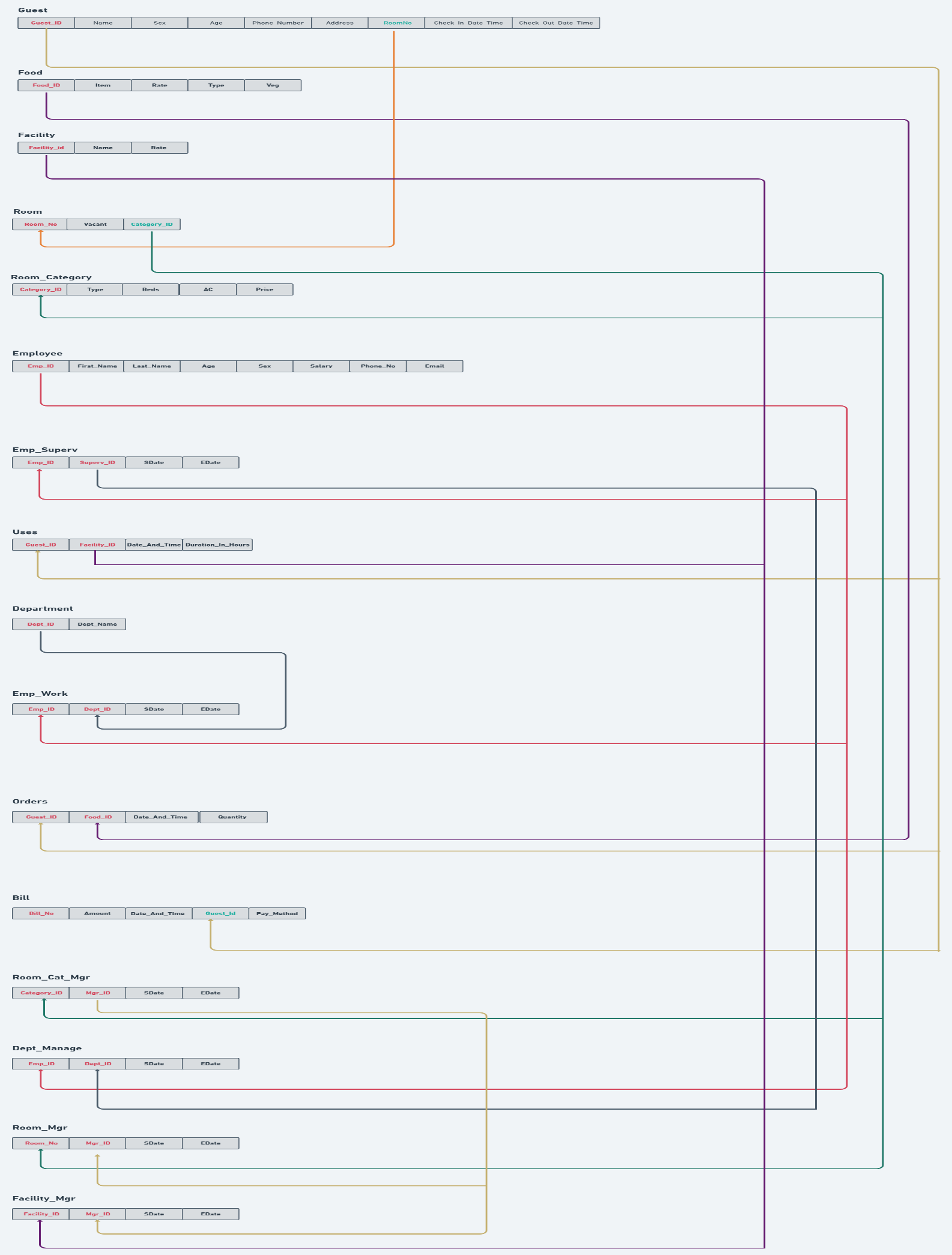
* Windows 10
* Oracle Live SQL

# ER Diagram

Here, Bold Line (PINK) represents Total Participation whereas Normal Line (BLUE) represents Partial Participation. Here, RED colour denotes Primary Key, BLUE colour signifies Partial Key and YELLOW colour represents Attributes.



# Schema Diagram



# Tables and Constraints

Guest:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Guest\_ID** | VARCHAR2 | PRIMARY KEY |
| **Name** | VARCHAR2 | NOT NULL |
| **Sex** | CHAR | NOT NULL |
| **Age** | NUMBER | CHECK (Age>0) |
| **Phone\_Number** | NUMBER | NOT NULL |
| **Address** | VARCHAR2 |  |
| **Room\_No** | NUMBER | FOREIGN KEY REFERENCES Room(Room\_No) |
| **Check\_In\_Date\_Time** | VARCHAR 2 | TIMESTAMP |
| **Check\_Out\_Date\_Time** | VARCHAR2 | TIMESTAMP |

Food:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Food\_ID** | VARCHAR2 | PRIMARY KEY |
| **Item** | VARCHAR2 | NOT NULL |
| **Rate** | NUMBER | NOT NULL |
| **Type** | VARCHAR2 |  |
| **Veg** | CHAR | NOT NULL |

Facility:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Facility\_ID** | VARCHAR2 | PRIMARY KEY |
| **Name** | VARCHAR2 | NOT NULL |
| **Rate** | NUMBER | NOT NULL |

Room:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Room\_No** | NUMBER | PRIMARY KEY |
| **Vacant** | CHAR | NOT NULL |
| **Category\_ID** | VARCHAR2 | NOT NULL, FOREIGN KEY  REFERENCES Room\_Category(Category\_ID) |

Room\_Category:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Category\_ID** | VARCHAR2 | PRIMARY KEY |
| **Type** | CHAR |  |
| **Beds** | VARCHAR2 |  |
| **AC** | CHAR | NOT NULL |
| **Price** | NUMBER | NOT NULL |

Employee:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Emp\_ID** | VARCHAR2 | PRIMARY KEY |
| **First\_Name** | VARCHAR2 | NOT NULL |
| **Last\_Name** | VARCHAR2 |  |
| **Age** | NUMBER | NOT NULL |
| **Sex** | CHAR | NOT NULL |
| **Salary** | NUMBER | NOT NULL |
| **Phone\_No** | NUMBER |  |
| **Email** | VARCHAR 2 | UNIQUE |

Emp\_Superv:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Emp\_ID** | VARCHAR2 | PRIMARY KEY |
| **Superv\_ID** | VARCHAR2 | PRIMARY KEY |
| **SDate** | DATE | NOT NULL |
| **EDate** | DATE |  |

Uses:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Guest\_ID** | VARCHAR2 | PRIMARY KEY |
| **Facility\_ID** | VARCHAR2 | PRIMARY KEY |
| **Date\_And\_Time** | TIMESTAMP | NOT NULL |
| **Duration\_In\_Hours** | NUMBER | NOT NULL |

Department:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Dept\_ID** | VARCHAR2 | PRIMARY KEY |
| **Dept\_Name** | VARCHAR2 | NOT NULL |

Emp\_Work:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Emp\_ID** | VARCHAR2 | PRIMARY KEY |
| **Dept\_ID** | VARCHAR2 | PRIMARY KEY |
| **SDate** | DATE | NOT NULL |
| **EDate** | DATE |  |

Orders:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Guest\_ID** | VARCHAR2 | PRIMARY KEY |
| **Food\_ID** | VARCHAR2 | PRIMARY KEY |
| **Date\_And\_Time** | TIMESTAMP |  |
| **Quantity** | NUMBER | NOT NULL |

Bill (Fully Dependent on Guest):

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Bill\_No** | VARCHAR2 | PRIMARY KEY |
| **Amount** | VARCHAR2 | NOT NULL |
| **Date\_And\_Time** | NUMBER | TIMESTAMP |
| **Guest\_ID** | NUMBER | NOT NULL, FOREIGN KEY REFERENCES Guest(Guest\_ID) |
| **Pay\_Method** | VARCHAR2 | VARCHAR2 |

Room\_Cat\_Mgr:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Category\_ID** | VARCHAR2 | PRIMARY KEY |
| **Mgr\_ID** | VARCHAR2 | PRIMARY KEY |
| **SDate** | DATE | NOT NULL |
| **EDate** | DATE |  |

Dept\_Manage:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Emp\_ID** | VARCHAR2 | PRIMARY KEY |
| **Dept\_ID** | VARCHAR2 | PRIMARY KEY |
| **SDate** | DATE | NOT NULL |
| **EDate** | DATE |  |

Room\_Mgr:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Room\_No** | NUMBER | PRIMARY KEY |
| **Mgr\_ID** | VARCHAR2 | PRIMARY KEY |
| **SDate** | DATE | NOT NULL |
| **EDate** | DATE |  |

Facility\_Mgr:

|  |  |  |
| --- | --- | --- |
| **ATTRIBUTES** | **DATA TYPES** | **CONSTRAINTS** |
| **Facility\_ID** | VARCHAR2 | PRIMARY KEY |
| **Mgr\_ID** | VARCHAR2 | PRIMARY KEY |
| **SDate** | DATE | NOT NULL |
| **EDate** | DATE |  |

# RECORDS and Queries

## Creating Tables:

CREATE TABLE Bill (

Bill\_No NUMBER(5) PRIMARY KEY,

Amount NUMBER(15,2) NOT NULL,

Date\_And\_Time TIMESTAMP,

Guest\_ID VARCHAR2(10) NOT NULL,

Pay\_Method VARCHAR2(15)

);

CREATE TABLE Food(

Food\_ID VARCHAR2(7) PRIMARY KEY,

Item VARCHAR2(20) NOT NULL,

Rate NUMBER(4) NOT NULL,

Type VARCHAR2(20),

Veg CHAR(1) NOT NULL

);

CREATE TABLE Facility (

Facility\_ID VARCHAR2(7) PRIMARY KEY,

Name VARCHAR2(20) NOT NULL,

Rate NUMBER(4) NOT NULL

);

CREATE TABLE Employee(

Emp\_ID VARCHAR(6) PRIMARY KEY,

First\_Name VARCHAR(15) NOT NULL,

Last\_Name VARCHAR(15),

Age NUMBER(3) NOT NULL,

Sex CHAR(1) NOT NULL,

Salary NUMBER(6) NOT NULL,

Phone\_No NUMBER(10),

Email VARCHAR2(30) UNIQUE

);

CREATE TABLE Department(

Dept\_ID VARCHAR2(6) PRIMARY KEY,

Dept\_Name VARCHAR2(30)

);

CREATE TABLE Room\_Category(

Category\_ID VARCHAR2(6) PRIMARY KEY,

Type VARCHAR2(40),

Beds NUMBER(2),

AC CHAR(1) NOT NULL,

Price NUMBER(6) NOT NULL

);

CREATE TABLE Guest(

Guest\_ID VARCHAR2(6) PRIMARY KEY,

Name VARCHAR2(20) NOT NULL,

Sex CHAR(1) NOT NULL,

Age NUMBER(4) CHECK(Age>0),

Phone\_Number NUMBER(10) NOT NULL,

Address VARCHAR2(30),

Room\_No NUMBER(4),

Check\_In\_Date\_Time TIMESTAMP,

Check\_Out\_Date\_Time TIMESTAMP

);

CREATE TABLE Room(

Room\_No NUMBER(5) PRIMARY KEY,

Vacant CHAR(1) NOT NULL,

Category\_ID VARCHAR2(6) NOT NULL

);

CREATE TABLE Dept\_Manage(

Emp\_ID VARCHAR2(6),

Dept\_ID VARCHAR2(6),

SDate DATE NOT NULL,

EDate DATE,

PRIMARY KEY(Emp\_ID,Dept\_ID)

);

CREATE TABLE Facility\_Mgr(

Facility\_ID VARCHAR2(7),

Mgr\_ID VARCHAR2(6),

SDate DATE NOT NULL,

EDate DATE,

PRIMARY KEY(Facility\_ID,Mgr\_ID)

);

CREATE TABLE Room\_Mgr(

Room\_No NUMBER(5),

Mgr\_ID VARCHAR2(6),

SDate DATE NOT NULL,

EDate DATE,

PRIMARY KEY(Room\_No,Mgr\_ID)

);

CREATE TABLE Room\_Cat\_Mgr(

Category\_ID VARCHAR2(6),

Mgr\_ID VARCHAR2(6),

SDate DATE NOT NULL,

EDate DATE,

PRIMARY KEY(Category\_ID,Mgr\_ID)

);

CREATE TABLE Emp\_Superv(

Emp\_ID VARCHAR2(6),

Superv\_ID VARCHAR2(6),

SDate DATE NOT NULL,

EDate DATE,

PRIMARY KEY(Emp\_ID,Superv\_ID)

);

CREATE TABLE Uses(

Guest\_ID VARCHAR2(6),

Facility\_ID VARCHAR2(7),

Date\_And\_Time TIMESTAMP,

Duration\_In\_Hours NUMBER(3,1) NOT NULL,

PRIMARY KEY(Guest\_ID,Facility\_ID)

);

CREATE TABLE Orders(

Guest\_ID VARCHAR2(6),

Food\_ID VARCHAR2(7),

Date\_And\_Time TIMESTAMP,

Quantity NUMBER(2) NOT NULL,

PRIMARY KEY(Guest\_ID,Food\_ID)

);

CREATE TABLE Emp\_Work(

Emp\_ID VARCHAR2(6) NOT NULL,

Dept\_ID VARCHAR2(6) NOT NULL,

SDate DATE NOT NULL,

EDate DATE,

PRIMARY KEY(Emp\_ID,Dept\_ID)

);

## Adding Foreign Key References:

ALTER TABLE Room

ADD FOREIGN KEY (Category\_ID) REFERENCES Room\_Category(Category\_ID) ON DELETE SET NULL;

ALTER TABLE Guest

ADD FOREIGN KEY (Room\_No) REFERENCES Room(Room\_No) ON DELETE SET NULL;

ALTER TABLE Bill

ADD FOREIGN KEY (Guest\_ID) REFERENCES Guest(Guest\_ID) ON DELETE SET NULL;

ALTER TABLE Dept\_Manage

ADD (FOREIGN KEY (Emp\_ID) REFERENCES Employee(Emp\_ID) ON DELETE SET NULL, FOREIGN KEY (Dept\_ID) REFERENCES Department(Dept\_ID) ON DELETE SET NULL);

ALTER TABLE Emp\_Work

ADD (FOREIGN KEY (Emp\_ID) REFERENCES Employee(Emp\_ID) ON DELETE SET NULL, FOREIGN KEY (Dept\_ID) REFERENCES Department(Dept\_ID) ON DELETE SET NULL);

ALTER TABLE Emp\_Superv

ADD (FOREIGN KEY (Emp\_ID) REFERENCES Employee(Emp\_ID) ON DELETE SET NULL, FOREIGN KEY (Superv\_ID) REFERENCES Employee(Emp\_ID) ON DELETE SET NULL);

ALTER TABLE Room\_Cat\_Mgr

ADD (FOREIGN KEY (Category\_ID) REFERENCES Room\_Category(Category\_ID) ON DELETE SET NULL, FOREIGN KEY (Mgr\_ID) REFERENCES Employee(Emp\_ID) ON DELETE SET NULL);

ALTER TABLE Room\_Mgr

ADD (FOREIGN KEY (Room\_No) REFERENCES Room(Room\_No) ON DELETE SET NULL, FOREIGN KEY (Mgr\_ID) REFERENCES Employee(Emp\_ID) ON DELETE SET NULL);

ALTER TABLE Facility\_Mgr

ADD (FOREIGN KEY (Facility\_ID) REFERENCES Facility(Facility\_ID) ON DELETE SET NULL, FOREIGN KEY (Mgr\_ID) REFERENCES Employee(Emp\_ID) ON DELETE SET NULL);

ALTER TABLE Uses

ADD (FOREIGN KEY (Guest\_ID) REFERENCES Guest(Guest\_ID) ON DELETE SET NULL, FOREIGN KEY (Facility\_ID) REFERENCES Facility(Facility\_ID) ON DELETE SET NULL);

ALTER TABLE Orders

ADD (FOREIGN KEY (Guest\_ID) REFERENCES Guest(Guest\_ID) ON DELETE SET

 NULL, FOREIGN KEY (Food\_ID) REFERENCES Food(Food\_ID) ON DELETE SET NULL);

## Inserting Records in table:

**Food:**

INSERT INTO Food VALUES('FOD0001','Bread Butter',20,'Breakfast','Y');

INSERT INTO Food VALUES('FOD0002','Poha',30,'Breakfast','Y');

INSERT INTO Food VALUES('FOD0003','Idli',20,'Breakfast','Y');

INSERT INTO Food VALUES('FOD0004','Dosa',30,'Breakfast','Y');

INSERT INTO Food VALUES('FOD0005','Omlette',20,'Breakfast','N');

**Facility:**

INSERT INTO Facility VALUES('FAC0001','Swimming Pool',250);

INSERT INTO Facility VALUES('FAC0002','Shoe Shine Service',70);

INSERT INTO Facility VALUES('FAC0003','Badminton',150);

INSERT INTO Facility VALUES('FAC0004','Table Tennis',150);

INSERT INTO Facility VALUES('FAC0005','Squash',150);

**Employee:**

INSERT INTO Employee VALUES('EMP101','Rahul','Bose',58,'M',45000,7958263897,'saar101@saar.co.in');

INSERT INTO Employee VALUES('EMP102','Animesh','Sharma',70,'M',80000,7960645805,'saar102@saar.co.in');

INSERT INTO Employee VALUES('EMP103','Shivash','Tiwari',19,'M',110000,6895697562,'saar103@saar.co.in');

INSERT INTO Employee VALUES('EMP104','Subham','Awasthi',75,'M',25000,7136859758,'saar104@saar.co.in');

INSERT INTO Employee VALUES('EMP105','Kashish','Mittal',39,'M',100000,7191800267,'saar105@saar.co.in');

INSERT INTO Employee

**Department:**

INSERT INTO Department VALUES('DEP001','Front Office');

INSERT INTO Department VALUES('DEP002','Housekeeping');

INSERT INTO Department VALUES('DEP003','Food and Beverage Service');

INSERT INTO Department VALUES('DEP004','Maintenance');

INSERT INTO Department VALUES('DEP005','Account and Credit');

**Room\_Category:**

INSERT INTO Room\_Category VALUES('RCT001','Deluxe',1,'Y',2000);

INSERT INTO Room\_Category VALUES('RCT002','Executive Deluxe',2,'Y',3000);

INSERT INTO Room\_Category VALUES('RCT003','Classic SAAR Deluxe',3,'Y',3500);

INSERT INTO Room\_Category VALUES('RCT004','Ambassador Deluxe',4,'Y',4500);

INSERT INTO Room\_Category VALUES('RCT005','SAAR Superior Deluxe',5,'Y',5000);

**Room:**

INSERT INTO Room VALUES (101,'Y','RCT001');

INSERT INTO Room VALUES (102,'Y','RCT001');

INSERT INTO Room VALUES (103,'Y','RCT001');

INSERT INTO Room VALUES (104,'Y','RCT001');

INSERT INTO Room VALUES (105,'Y','RCT001');

**Guest:**

INSERT INTO Guest VALUES ('GUD001','Ratan Agarwal','M', 35 , 9857563389 ,'BHOPAL, MADHYA PRADESH', 102 , TIMESTAMP'2019-07-12 14:00:00', TIMESTAMP'2019-07-25 07:00:00');

INSERT INTO Guest VALUES ('GUD002','Nikhar Ganhwar','M', 67 , 6578899341 ,'CHENNAI, TAMIL NADU', 104 , TIMESTAMP'2019-11-03 00:00:00', TIMESTAMP'2019-11-03 08:00:00');

INSERT INTO Guest VALUES ('GUD003','Naruto Uzumaki','M', 22 , 8709004567 ,'BHUBANESHWAR, ORRISA', 205 , TIMESTAMP'2019-12-13 15:00:00', null);

INSERT INTO Guest VALUES ('GUD004','Arnab Poddar','M', 45 , 9867003345 ,'KOHIMA, NAGALAND', 310 , TIMESTAMP'2019-11-02 23:00:00', TIMESTAMP'2019-11-27 11:00:00');

INSERT INTO Guest VALUES ('GUD005','Ai Hayasaka','F', 19 , 9845001200 ,'LUCKNOW, UTTAR PRADESH', 502 , TIMESTAMP'2019-01-03 11:10:00', TIMESTAMP'2019-02-01 07:00:00');

**Dept\_Mgr:**

INSERT INTO Dept\_Manage VALUES ('EMP122','DEP001', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Dept\_Manage VALUES ('EMP123','DEP002', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Dept\_Manage VALUES ('EMP124','DEP003', TO\_DATE('01-01-2019','dd-mm-yyyy'), TO\_DATE('06-06-2019','dd-mm-yyyy'));

INSERT INTO Dept\_Manage VALUES ('EMP130','DEP004', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Dept\_Manage VALUES ('EMP131','DEP005', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

**Facility\_Mgr:**

INSERT INTO Facility\_Mgr VALUES ('FAC0001','EMP104', TO\_DATE('01-01-2019','dd-mm-yyyy'), TO\_DATE('19-07-2019','dd-mm-yyyy'));

INSERT INTO Facility\_Mgr VALUES ('FAC0002','EMP130', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Facility\_Mgr VALUES ('FAC0003','EMP140', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Facility\_Mgr VALUES ('FAC0004','EMP114', TO\_DATE('01-01-2019','dd-mm-yyyy'), TO\_DATE('18-10-2019','dd-mm-yyyy'));

INSERT INTO Facility\_Mgr VALUES ('FAC0005','EMP117', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

**Room\_Mgr:**

INSERT INTO Room\_Mgr VALUES (  101 ,'EMP138', TO\_DATE('01-01-2019','dd-mm-yyyy'), TO\_DATE('06-03-2019','dd-mm-yyyy'));

INSERT INTO Room\_Mgr VALUES (  102 ,'EMP138', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Room\_Mgr VALUES (  103 ,'EMP138', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Room\_Mgr VALUES (  104 ,'EMP140', TO\_DATE('01-01-2019','dd-mm-yyyy'), TO\_DATE('25-05-2019','dd-mm-yyyy'));

INSERT INTO Room\_Mgr VALUES (  105 ,'EMP140', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

**Room\_Cat\_Mgr:**

INSERT INTO Room\_Cat\_Mgr VALUES ('RCT001','EMP122', TO\_DATE('01-01-2019','dd-mm-yyyy'), TO\_DATE('12-05-2019','dd-mm-yyyy'));

INSERT INTO Room\_Cat\_Mgr VALUES ('RCT002','EMP123', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Room\_Cat\_Mgr VALUES ('RCT003','EMP124', TO\_DATE('01-01-2019','dd-mm-yyyy'), TO\_DATE('15-08-2019','dd-mm-yyyy'));

INSERT INTO Room\_Cat\_Mgr VALUES ('RCT004','EMP130', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Room\_Cat\_Mgr VALUES ('RCT005','EMP131', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

**Emp\_Superv:**

INSERT INTO  Emp\_Superv VALUES ('EMP101','EMP122', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO  Emp\_Superv VALUES ('EMP102','EMP122', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO  Emp\_Superv VALUES ('EMP103','EMP122', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO  Emp\_Superv VALUES ('EMP104','EMP122', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO  Emp\_Superv VALUES ('EMP105','EMP122', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

**Uses:**

INSERT INTO Uses VALUES ('GUD001','FAC0001', TIMESTAMP'2019-07-12 15:00:00', 5.0 );

INSERT INTO Uses VALUES ('GUD002','FAC0002', TIMESTAMP'2019-11-03 05:00:00', 2.0 );

INSERT INTO Uses VALUES ('GUD003','FAC0003', TIMESTAMP'2019-07-13 16:00:00', 3.0 );

INSERT INTO Uses VALUES ('GUD004','FAC0004', TIMESTAMP'2019-11-03 08:00:00', 4.0 );

INSERT INTO Uses VALUES ('GUD005','FAC0005', TIMESTAMP'2019-01-03 12:00:00', 1.0 );

**Orders:**

INSERT INTO Orders VALUES ('GUD005','FOD0001',TIMESTAMP'2019-01-05 11:10:00', 2 );

INSERT INTO Orders VALUES ('GUD020','FOD0010',TIMESTAMP'2019-05-02 09:30:00', 1 );

INSERT INTO Orders VALUES ('GUD001','FOD0008',TIMESTAMP'2019-07-13 14:00:00', 3 );

INSERT INTO Orders VALUES ('GUD026','FOD0019',TIMESTAMP'2019-12-31 14:45:00', 4 );

INSERT INTO Orders VALUES ('GUD002','FOD0015',TIMESTAMP'2019-11-05 05:00:00', 2 );

**Emp\_Work:**

INSERT INTO Emp\_Work VALUES ('EMP101','DEP010', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Emp\_Work VALUES ('EMP102','DEP002', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Emp\_Work VALUES ('EMP103','DEP002', TO\_DATE('01-01-2019','dd-mm-yyyy'), TO\_DATE('06-06-2019','dd-mm-yyyy'));

INSERT INTO Emp\_Work VALUES ('EMP104','DEP010', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

INSERT INTO Emp\_Work VALUES ('EMP105','DEP010', TO\_DATE('01-01-2019','dd-mm-yyyy'), null);

**Bill:**

INSERT INTO Bill VALUES (  1 , 26185.0 , TIMESTAMP '2019-07-25 07:00:00','GUD001','Credit Card');

INSERT INTO Bill VALUES (  2 , 2200.0 , TIMESTAMP '2019-11-03 08:00:00','GUD002','Cash');

INSERT INTO Bill VALUES (  3 , 63500.0 , TIMESTAMP '2019-08-01 20:00:00','GUD003','Debit Card');

INSERT INTO Bill VALUES (  4 , 138100.0 , TIMESTAMP '2019-11-27 11:00:00','GUD004','Credit Card');

INSERT INTO Bill VALUES (  5 , 232190.0 , TIMESTAMP '2019-02-01 07:00:00','GUD005','Debit Card');

**Queries:**

**1. Display all the vacant rooms**

SELECT \*

FROM Room

WHERE Vacant = ‘Y’;

**2. Display the details of all Guests staying in the hotel now**

Select \*

FROM Guest

WHERE Check\_Out\_Date\_Time IS NULL;

**3. Display the details of all Guests residing between 1st August 2019 and 1st December 2019.**

SELECT \*

FROM Guest

WHERE Check\_In\_Date\_Time > DATE'2019-08-01' AND Check\_In\_Date\_Time < DATE'2019-12-01';

**4. Display the name and contact number of guests who have used the table tennis facility.**

SELECT \*

FROM Guest

 WHERE Guest\_ID IN

(SELECT Guest\_ID

FROM Uses

WHERE Facility\_ID IN

(SELECT Facility\_ID

FROM Facility

WHERE Name = 'Table Tennis'));

**5. Display the facilities used by guest id GUD003.**

SELECT Name

FROM Facility

WHERE Facility\_ID IN

(SELECT Facility\_ID

FROM Uses

WHERE Guest\_ID = 'GUD003');

**6. Display the food ordered by guest id GUD001.**

SELECT Item

FROM Food

WHERE Food\_ID in

(SELECT Food\_ID

FROM Orders

WHERE Guest\_ID = 'GUD001');

**7. Display details of all the senior citizens who have stayed in hotel.**

SELECT name

FROM guest

WHERE age>60 ;

**8. Display the details of the guest who having the maximum bill amount.**

SELECT Name

FROM Guest

WHERE Guest\_ID =

(SELECT Guest\_ID

FROM Bill

WHERE amount =

(SELECT MAX(amount)

FROM Bill));

**9. Display the details of female employees having salary greater than 50000.**

SELECT \* FROM Employee

WHERE Sex = 'F' AND SALARY> 50000

**10. Display the details of all employees who are supervised by employee having id EMP123.**

SELECT \* FROM Emp\_Superv

WHERE Superv\_ID = 'EMP123'

**11. Display average salary of employees working.**

SELECT AVG(Salary)

FROM Employee

**12. Display the total combined salary of all employees.**

SELECT SUM(Salary)

FROM Employee

**13. Display details of all guests from RAJASTHAN.**

SELECT \*

FROM Guest

WHERE address LIKE '%RAJASTHAN';

**14. Display all items available for breakfast.**

SELECT Item, Rate

FROM Food

WHERE Type = 'Breakfast';

**15. Display details of room category having highest price.**

SELECT \*

FROM Room\_Category

WHERE Price = (

SELECT MAX(Price) FROM Room\_Category

)

**16. Display the details of all departments employee EMP110 has worked for.**

SELECT \*

FROM Department

WHERE Dept\_ID IN (

SELECT Dept\_ID

FROM Emp\_Work

WHERE Emp\_ID = 'EMP110'

);