

The Guild Hotel is a resort hotel on the West Arm of Lake Minnetonka. It is a relatively small hotel, with **three floors of rooms**.

4th floor:

- Two large suites

3rd floor:

- Eight standard-sized hotel rooms

2nd floor:

- Eight standard-sized hotel rooms

Ground floor

- Customer service counter, a lounge area, a small exercise room, and a restaurant.

Build a database that satisfies at least **third normal form (3NF)** using the data provided here. Expected to **identify the tables, fields, and relationships that will house this data**.

## Rooms

Rooms 201-204 and 301-304

- Double room with two queen beds
- Sleep up to 4 people.
- Includes a refrigerator or a microwave, but not both.
- \$174.99/night for 2 adults, with an additional \$10 for each additional adult per night.

Rooms 205-208 and 305-308

- Single room with a single king bed
- Sleep up to 2 people.
- Includes both a microwave and a refrigerator.
- \$149.99/night for 2 adults.

Rooms 401 and 402

- Suite
- Two separate bedrooms:
  - One with two queen-sized beds
  - One with one king-sized bed.
- Includes a shared living room space with a sleeper sofa.
- Sleep up to 8 people.
- Includes a full kitchen, Refrigerator, an electric stove and oven, and a microwave oven.
- Is ADA accessible.
- \$399.99/night for 3 adults, with an additional \$20 for each additional adult per night.

## Additional Data

- A jacuzzi adds \$25 to the base price.
- All even-numbered rooms on the second and third floors are ADA accessible.
- All odd-numbered rooms on the second and third floors have a jacuzzi bath.
- Children (under age 18) do not incur additional charges if there is at least one adult per room on the reservation.
- Guest information is collected only when a guest makes a reservation,
- All guests have at least one reservation in the system.
- A reservation can include multiple rooms reserved by the same guest and for the same dates.
- Adults are guests whose age is 18 or older.
- Children are guests under the age of 18.
- Start date represents the first evening the guest will stay at the hotel.
- End date represents the day the guest plans to check out.

## Specifications for the ERD:

- The ERD should be created separately from the RDBMS.
- The design should **be in second normal form**.? Says 3nf above?
- All tables and columns should be named appropriately
- The ERD should specify the data type and field size
- The ERD should indicate the nullability of all non-key fields.
- The ERD should identify primary keys and foreign keys in each table.
- The ERD should identify all relationships between tables.

## Define the Database:

Create a SQL script that performs the following steps:

- Create a new database named YourNameHotelDB.
- Drops the existing database, if it exists, so that the script can rebuild a database
- Creates the tables with all appropriate fields, data types, and keys, using the structure indicated in the ERD.
  - Tip: Create the primary tables first, followed by the tables with foreign keys.

Name the file YourName-HotelDB.sql.

## Manage the Data

First, using the data provided in the tables above, create the required SQL statements to populate the tables with the data above.

Include your name, address, and phone number in the first record of the table for guests. You may use a fictitious address and phone number, as long as you use your own name. As with the tables, add data to the primary tables before adding data to the tables with foreign keys.

Create SQL statements that will delete Jeremiah Pendergrass and his reservations from the database.

Deleting data should start with records that reference Jeremiah Pendergrass using a foreign key and then delete the record from the guest table as the last step.

The scripts should only delete records related to Jeremiah Pendergrass and his reservations. They should not delete any room data.

The script should run from beginning to end without errors.

Name the file YourName-HotelData.sql.

You are encouraged to use Excel or another spreadsheet application to generate csv files that you can import into MySQL tables.

You can then use MySQL to generate the Insert statements to include in your script.

## Query the Database

Queries to retrieve the following data from the database:

1. Write a query that returns a list of reservations that end in July 2023, including the name of the guest, the room number(s), and the reservation dates.
2. Write a query that returns a list of all reservations for rooms with a jacuzzi, displaying the guest's name, the room number, and the dates of the reservation.
3. Write a query that returns all the rooms reserved for a specific guest, including the guest's name, the room(s) reserved, the starting date of the reservation, and how many people were included in the reservation. (Choose a guest's name from the existing data.)
4. Write a query that returns a list of rooms, reservation ID, and per-room cost for each reservation. The results should include all rooms, whether or not there is a reservation associated with the room.
5. Write a query that returns all rooms with a capacity of three or more and that are reserved on any date in April 2023.
6. Write a query that returns a list of all guest names and the number of reservations per guest, sorted starting with the guest with the most reservations and then by the guest's last name.
7. Write a query that displays the name, address, and phone number of a guest based on their phone number. (Choose a phone number from the existing data.)

For each query, include:

- The request from this assignment as a comment above the query, including the number
- The query itself
- The results of the query in a comment under the query

Name the file YourName-HotelQueries.sql.

## Submit Your Work

YourName-HotelERD.jpg

YourName-HotelDB.sql

YourName-HotelData.sql

YourName-HotelQueries.sql

## Room Data

Room	Type	Amenities	ADA Accessible	Standard Occupancy	Maximum Occupancy	Base Price	Extra Person
201	Double	Microwave, Jacuzzi	No	2	4	\$199.99	\$10
202	Double	Refrigerator	Yes	2	4	\$174.99	\$10
203	Double	Microwave, Jacuzzi	No	2	4	\$199.99	\$10
204	Double	Refrigerator	Yes	2	4	\$174.99	\$10
205	Single	Microwave, Refrigerator, Jacuzzi	No	2	2	\$174.99	NA
206	Single	Microwave, Refrigerator	Yes	2	2	\$149.99	NA
207	Single	Microwave, Refrigerator, Jacuzzi	No	2	2	\$174.99	NA
208	Single	Microwave, Refrigerator	Yes	2	2	\$149.99	NA
301	Double	Microwave, Jacuzzi	No	2	4	\$199.99	\$10
302	Double	Refrigerator	Yes	2	4	\$174.99	\$10
303	Double	Microwave, Jacuzzi	No	2	4	\$199.99	\$10
304	Double	Refrigerator	Yes	2	4	\$174.99	\$10
305	Single	Microwave, Refrigerator, Jacuzzi	No	2	2	\$174.99	NA
306	Single	Microwave, Refrigerator	Yes	2	2	\$149.99	NA
307	Single	Microwave, Refrigerator, Jacuzzi	No	2	2	\$174.99	NA
308	Single	Microwave, Refrigerator	Yes	2	2	\$149.99	NA

401	Suite	Microwave, Refrigerator , Oven	Yes	3	8	\$399.99	\$20
402	Suite	Microwave, Refrigerator , Oven	Yes	3	8	\$399.99	\$20

## Guests

Name	Address	City	State	Zip	Phone
Jasen Ratnam	135 Cat Tail Bay Dr	Conway	SC	29527	(843) 397-7718
Mack Simmer	379 Old Shore Street	Council Bluffs	IA	51501	(291) 553-0508
Bettyann Seery	750 Wintergreen Dr.	Wasilla	AK	99654	(478) 277-9632
Duane Cullison	9662 Foxrun Lane	Harlingen	TX	78552	(308) 494-0198
Karie Yang	9378 W. Augusta Ave.	West Deptford	NJ	08096	(214) 730-0298
Aurore Lipton	762 Wild Rose Street	Saginaw	MI	48601	(377) 507-0974
Zachery Luechtefeld	7 Poplar Dr.	Arvada	CO	80003	(814) 485-2615
Jeremiah Pendergrass	70 Oakwood St.	Zion	IL	60099	(279) 491-0960
Walter Holaway	7556 Arrowhead St.	Cumberland	RI	02864	(446) 396-6785
Wilfred Vise	77 West Surrey Street	Oswego	NY	13126	(834) 727-1001
Maritza Tilton	939 Linda Rd.	Burke	VA	22015	(446) 351-6860
Joleen Tison	87 Queen St.	Drexel Hill	PA	19026	(231) 893-2755

## Reservations

Room Number	Name	Adults	Children	Start Date	End Date	Total Room Cost
308	Mack Simmer	1	0	2/2/2023	2/4/2023	\$299.98
203	Bettyann Seery	2	1	2/5/2023	2/10/2023	\$999.95
305	Duane Cullison	2	0	2/22/2023	2/24/2023	\$349.98
201	Karie Yang	2	2	3/6/2023	3/7/2023	\$199.99
307	Jasen Ratnam	1	1	3/17/2023	3/20/2023	\$524.97
302	Aurore Lipton	3	0	3/18/2023	3/23/2023	\$924.95
202	Zachery Luechtefeld	2	2	3/29/2023	3/31/2023	\$349.98
304	Jeremiah Pendergras s	2	0	3/31/2023	4/5/2023	\$874.95
301	Walter Holaway	1	0	4/9/2023	4/13/2023	\$799.96
207	Wilfred Vise	1	1	4/23/2023	4/24/2023	\$174.99
401	Maritza Tilton	2	4	5/30/2023	6/2/2023	\$1,199.97
206	Joleen Tison	2	0	6/10/2023	6/14/2023	\$599.96
208	Joleen Tison	1	0	6/10/2023	6/14/2023	\$599.96
304	Aurore Lipton	3	0	6/17/2023	6/18/2023	\$184.99
205	Jasen Ratnam	2	0	6/28/2023	7/2/2023	\$699.96
204	Walter Holaway	3	1	7/13/2023	7/14/2023	\$184.99
401	Wilfred Vise	4	2	7/18/2023	7/21/2023	\$1,259.97
303	Bettyann Seery	2	1	7/28/2023	7/29/2023	\$199.99

305	Bettyann Seery	1	0	8/30/2023	9/1/2023	\$349.98
208	Mack Simmer	2	0	9/16/2023	9/17/2023	\$149.99
203	Karie Yang	2	2	9/13/2023	9/15/2023	\$399.98
401	Duane Cullison	2	2	11/22/2023	11/25/2023	\$1,199.97
206	Mack Simmer	2	0	11/22/2023	11/25/2023	\$449.97
301	Mack Simmer	2	2	11/22/2023	11/25/2023	\$599.97
302	Maritza Tilton	2	0	12/24/2023	12/28/2023	\$699.96