SOLAR HOTEL DATABASE

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Introduction

Our mini-world is a world class hotel that provides state-of-the art services.
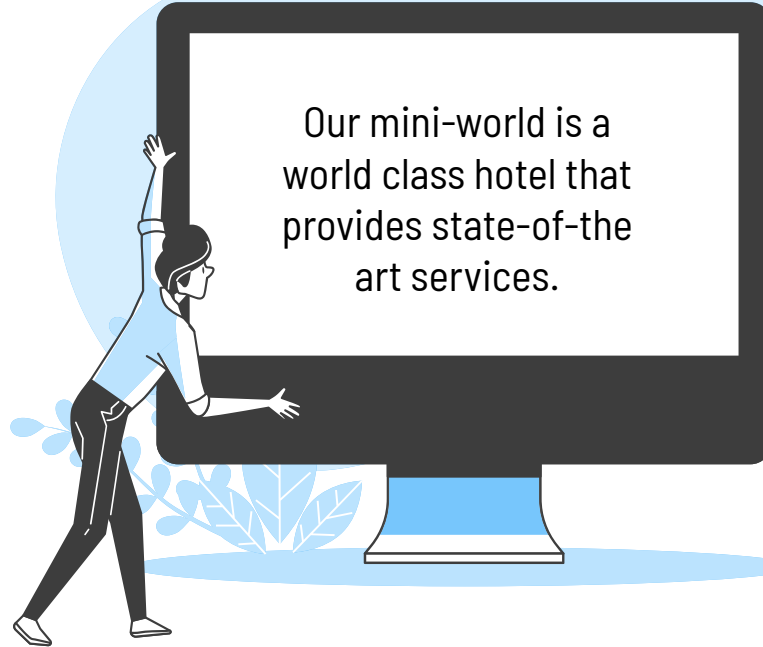
Introduction

DBMS
Our team will be using MySQL to develop the project

The goal
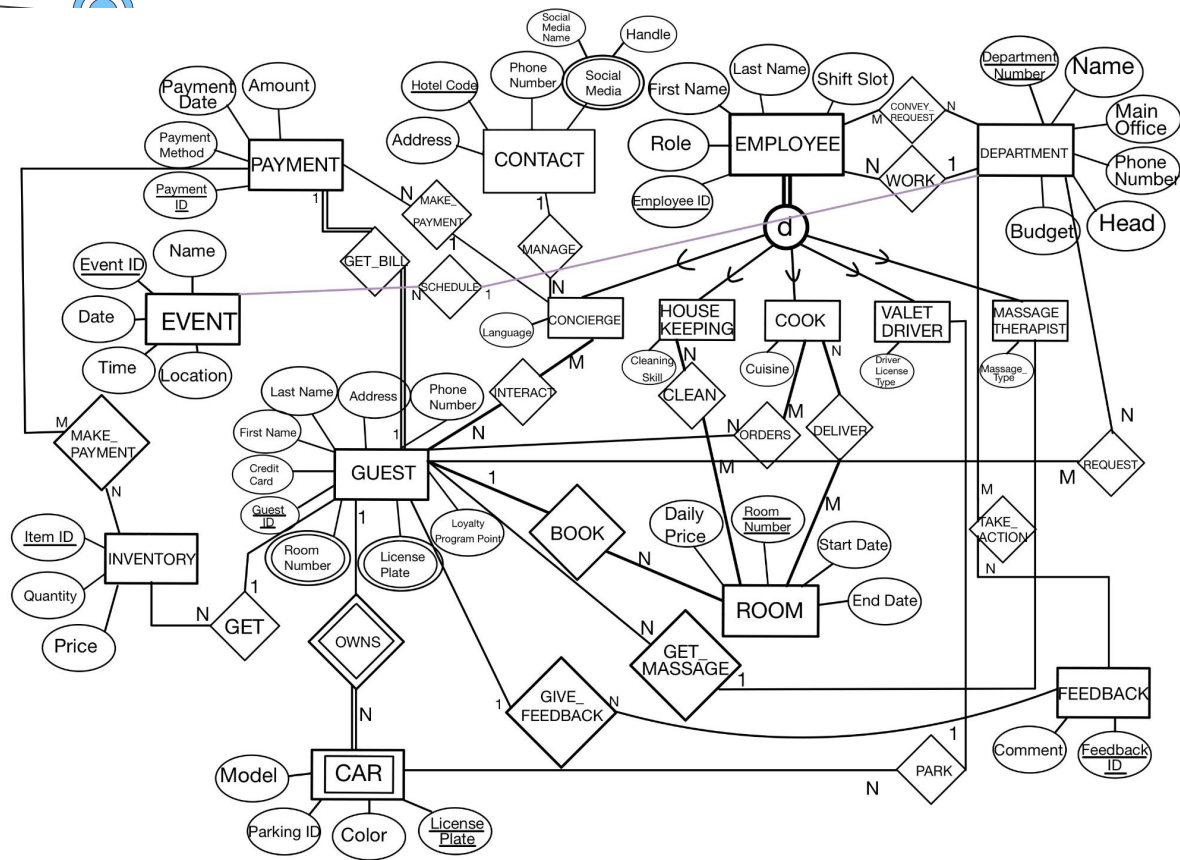Our database is aimed to help the hotel have efficient management of operations

Eventual Users
The eventual users would be the employees of this hotel, especially the concierge
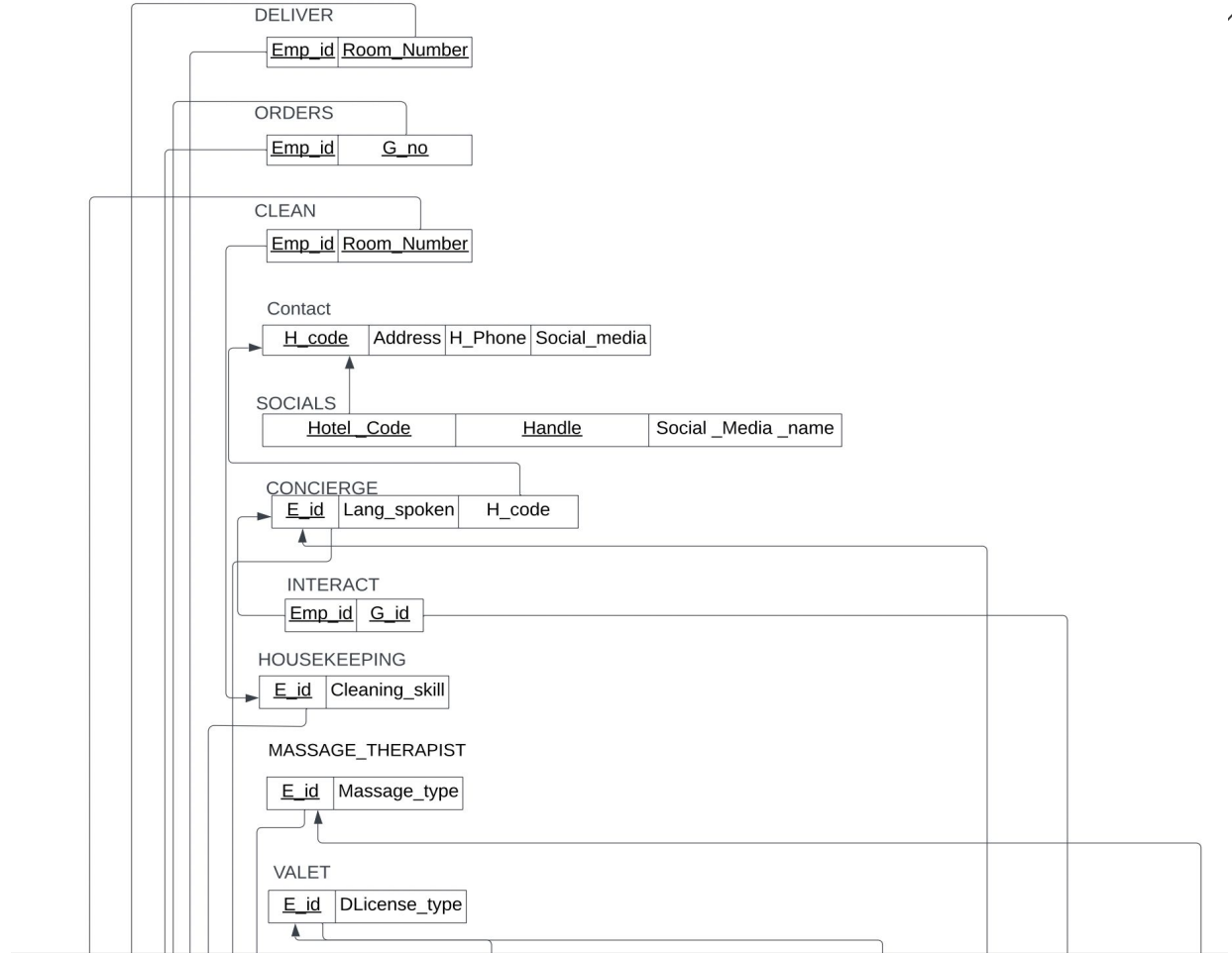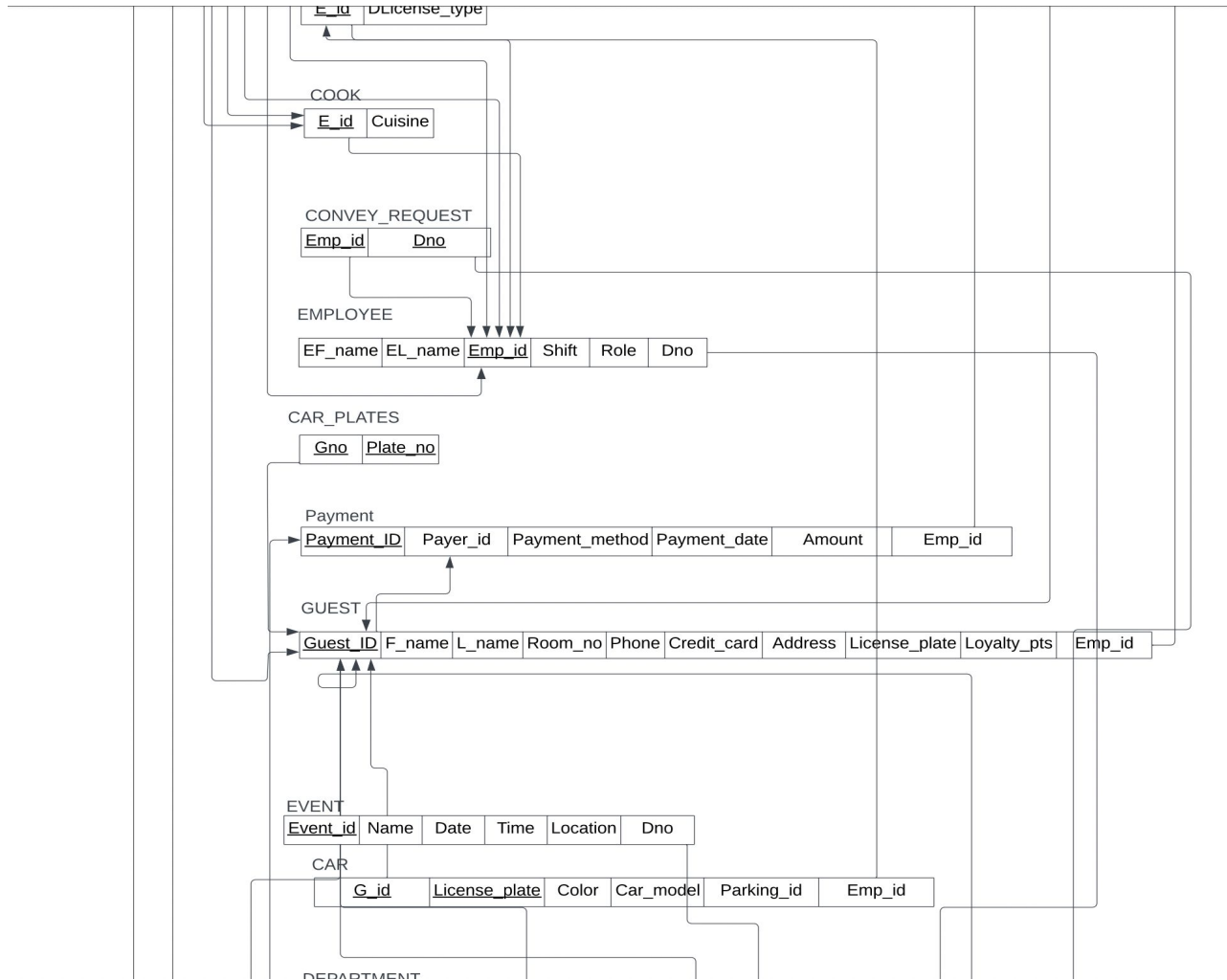
More about the Hotel

Guests

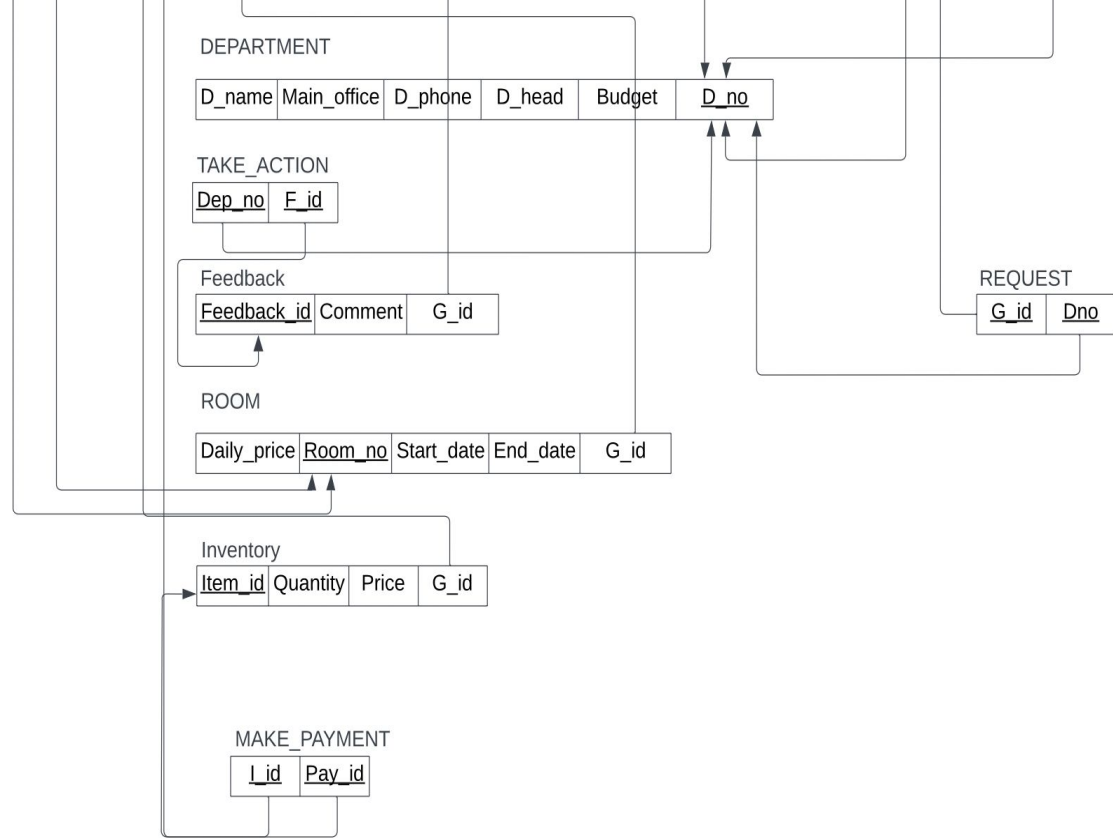Guests come to the hotel to enjoy luxury services

Employees

Employees like the concierge and valet maintain the hotel

Services

The hotel offers events, goods to purchase, and more!

ER Diagram

Schema Diagram

DELIVER

Emp_id	Room_Number

ORDERS

Emp_id	G_no

CLEAN

Emp_id	Room_Number

Contact

H_code	Address	H_Phone	Social_media

SOCIALS

Hotel _Code	Handle	Social _Media _name

CONCIERGE

E_id	Lang_spoken	H_code

INTERACT

Emp_id	G_id

HOUSEKEEPING

E_id	Cleaning_skill

MASSAGE_THERAPIST

E_id	Massage_type

VALET

E_id	DLicense_type

Schema Diagram

	E_id	DLicense_type

COOK

E_id	Cuisine

CONVEY_REQUEST

Emp_id	Dno

EMPLOYEE

EF_name	EL_name	Emp_id	Shift	Role	Dno

CAR_PLATES

Gno	Plate_no

Payment

Payment_ID	Payer_id	Payment_method	Payment_date	Amount	Emp_id

GUEST

Guest_ID	F_name	L_name	Room_no	Phone	Credit_card	Address	License_plate	Loyalty_pts	Emp_id

EVENT

Event_id	Name	Date	Time	Location	Dno

CAR

G_id	License_plate	Color	Car_model	Parking_id	Emp_id

DEPARTMENT

Schema Diagram

DEPARTMENT

D_name	Main_office	D_phone	D_head	Budget	D_no

TAKE_ACTION

Dep_no	F_id

Feedback

Feedback_id	Comment	G_id

REQUEST

G_id	Dno

ROOM

Daily_price	Room_no	Start_date	End_date	G_id

Inventory

Item_id	Quantity	Price	G_id

MAKE_PAYMENT

I_id	Pay_id

Business Challenges

- Solar Hotel's database is built in a way to handle large amounts of data and continue to provide efficient results when needed from the database.

- Different tables represent different entities and its respective attributes.

- We created integrity constraints in the tables that required them to prevent running into errors when making queries.

- Biggest challenge: how to uniquely identify guests, employees, and other key attributes without an overlap in identification numbers
  - Solution: We used drivers licence numbers for guests and social security numbers for employees.

TABLE RESULT

< GUEST TABLE>

Guest_ID	F_name	L_name	Room_no	Phone	Credit_card	Address	Loyalty_pts	Emp_ID
12345678	JAMES	SMITH	201	1234567890	1234567890123456	2947 BAKSU ST	604	86559
23456789	JOHN	JOHNSON	202	1345678901	1345678901234567	2957 SITN ST	1005	35617
13456789	ROBERT	WILLIAMS	203	1456789012	1456789012345678	0748 DALLAS ST	205	58039
14567890	MICHAEL	BROWN	204	1567890123	1567890123456789	2485 PLANO ST	680	29771
10234566	WILLIAM	JONES	205	1678901234	1678901234567890	3768 RICHARDSON ST	1027	12893
34567890	DAVID	GARCIA	206	1789012345	1789012345678901	78462 ARLINGTON ST	285	46957
45678901	RICHARD	MILLER	207	1890123456	1890123456789012	7702 DALLAS ST	3948	73095
56789012	CHARLES	DAVIS	208	1901234567	1901234567890123	6883 NEWYORK ST	2345	99231
67890123	JOSEPH	RODRIGUEZ	209	2345678901	2123456789012345	6843 CHICAGO ST	3847	65173
78901234	THOMAS	MARTINEZ	301	2456789012	2234567890123456	9272 AUSTIN ST	8937	82319
89012345	MARY	HERNANDEZ	302	2567890123	2345678901234567	58746 SEATTLE ST	293	49559
90123456	PATRICIA	LOPEZ	303	2678901234	2456789012345678	4372 SANDIEGO ST	897	26799
15678901	LINDA	GONZALES	304	2789012345	2567890123456789	3998 GALVESTON ST	380	13939
87654321	BARBARA	WILSON	305	2890123456	2678901234567890	6543 IRVING ST	9038	50177
17890123	ELIZABETH	ANDERSON	306	2901234567	2789012345678901	3946 COPPELL ST	3843	76315
25678901	JENNIFER	THOMAS	307	3456789012	2890123456789012	0192 RENNER ST	897	25678
19012345	MARIA	TAYLOR	308	3567890123	2901234567890123	9346 DENTON ST	784	14526
38459281	SUSAN	MOORE	309	3678901234	2012345678901234	87654 FRISCO ST	4937	98754
25678902	MARGARET	JACKSON	401	3789012345	3123456789012345	90123 ALLEN ST	28	32100
28901234	DOROTHY	MARTIN	402	3890123456	3234567890123456	12345 GARLAND ST	9	65432
29012345	CHRIST...	LEE	403	3901234567	3345678901234567	2947 PILS ST	587	97856

SELECT *
FROM GUEST;
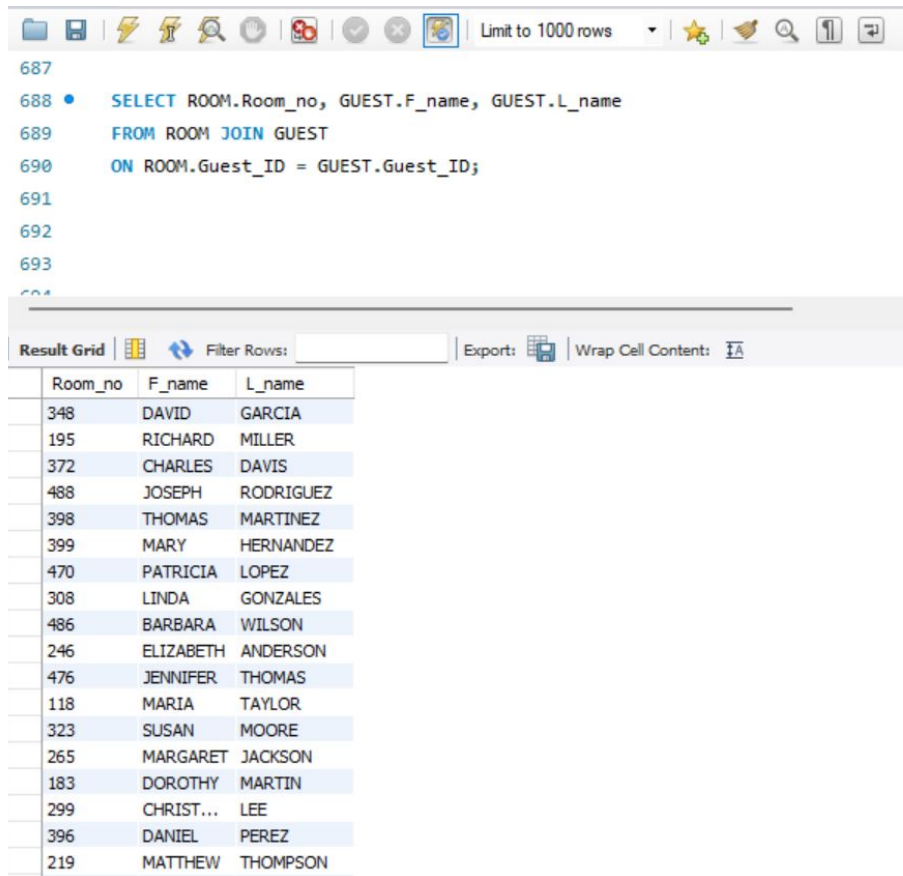
< ROOM TABLE>

Daily_price	Room_no	Start_date	End_date	Guest_ID
163.51	369	2023-04-18	2023-05-20	12345678
326.14	206	2023-04-17	2023-05-01	23456789
106.96	492	2023-04-28	2023-05-09	13456789
342.85	271	2023-04-27	2023-05-21	14567890
329.35	484	2023-04-17	2023-05-14	10234566
115.65	348	2023-04-01	2023-05-02	34567890
241.45	195	2023-04-22	2023-05-18	45678901
151.34	372	2023-04-13	2023-05-30	56789012
108.09	488	2023-04-03	2023-05-03	67890123
286.83	398	2023-04-18	2023-05-07	78901234
341.96	399	2023-04-08	2023-05-02	89012345
256.36	470	2023-04-19	2023-05-08	90123456
147.08	308	2023-04-27	2023-05-27	15678901
166.67	486	2023-04-14	2023-05-10	87654321
151.49	246	2023-04-01	2023-05-13	17890123
219.31	476	2023-04-07	2023-05-03	25678901
263.56	118	2023-04-10	2023-05-29	19012345
290.79	323	2023-04-22	2023-05-05	38459281
292.62	265	2023-04-08	2023-05-29	25678902
149.18	183	2023-04-18	2023-05-22	28901234
108.38	299	2023-04-20	2023-05-13	29012345

SELECT *
FROM ROOM;

SQL Command Screenshot

SELECT ROOM.Room_no, GUEST.F_name, GUEST.L_name
FROM ROOM JOIN GUEST
ON Guest_ID = Guest_ID

```
687
688 ●   SELECT ROOM.Room_no, GUEST.F_name, GUEST.L_name
689     FROM ROOM JOIN GUEST
690     ON ROOM.Guest_ID = GUEST.Guest_ID;
691
692
693
```

Limit to 1000 rows

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

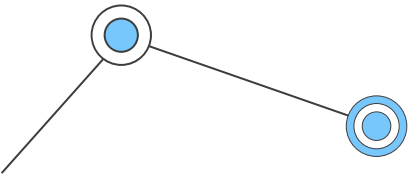| Room_no	F_name	L_name
348	DAVID	GARCIA
195	RICHARD	MILLER
372	CHARLES	DAVIS
488	JOSEPH	RODRIGUEZ
398	THOMAS	MARTINEZ
399	MARY	HERNANDEZ
470	PATRICIA	LOPEZ
308	LINDA	GONZALES
486	BARBARA	WILSON
246	ELIZABETH	ANDERSON
476	JENNIFER	THOMAS
118	MARIA	TAYLOR
323	SUSAN	MOORE
265	MARGARET	JACKSON
183	DOROTHY	MARTIN
299	CHRIST...	LEE
396	DANIEL	PEREZ
219	MATTHEW	THOMPSON

DEMO

Website Interface and
SQL Workspace

Next Steps
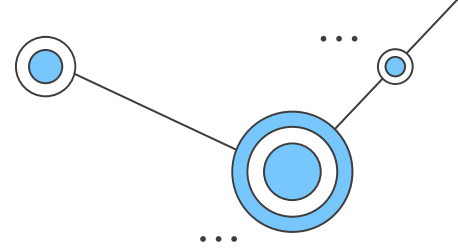
- The database created accounts for a surge in customers and is able to handle an influx of data at a period of time.

- The creation of the database has allowed Solar Hotel to confirm reliability and security of their guests' information without a high risk of errors.

- Future plans: Increasing the speed of the database's operations and integrating features such as:
  - Rewards program for Solar Hotel,
  - Add specialized employee roles such as event manager or accountant
  - Add an additional layer of encryption since we use the SSNs of employees
  - Continue developing the website interface

Thanks!

Any Questions?