

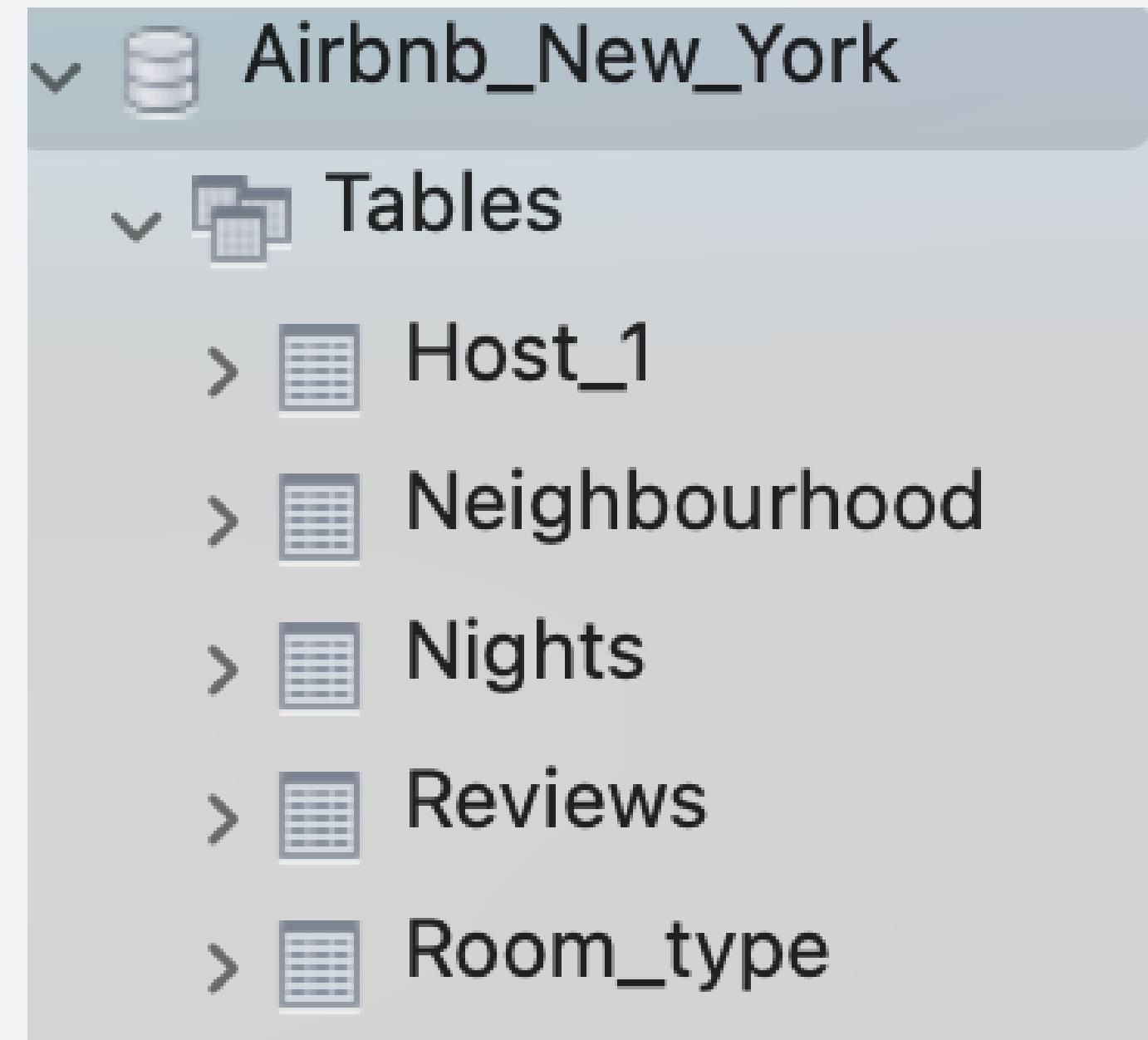


# **SQL PROJECT**

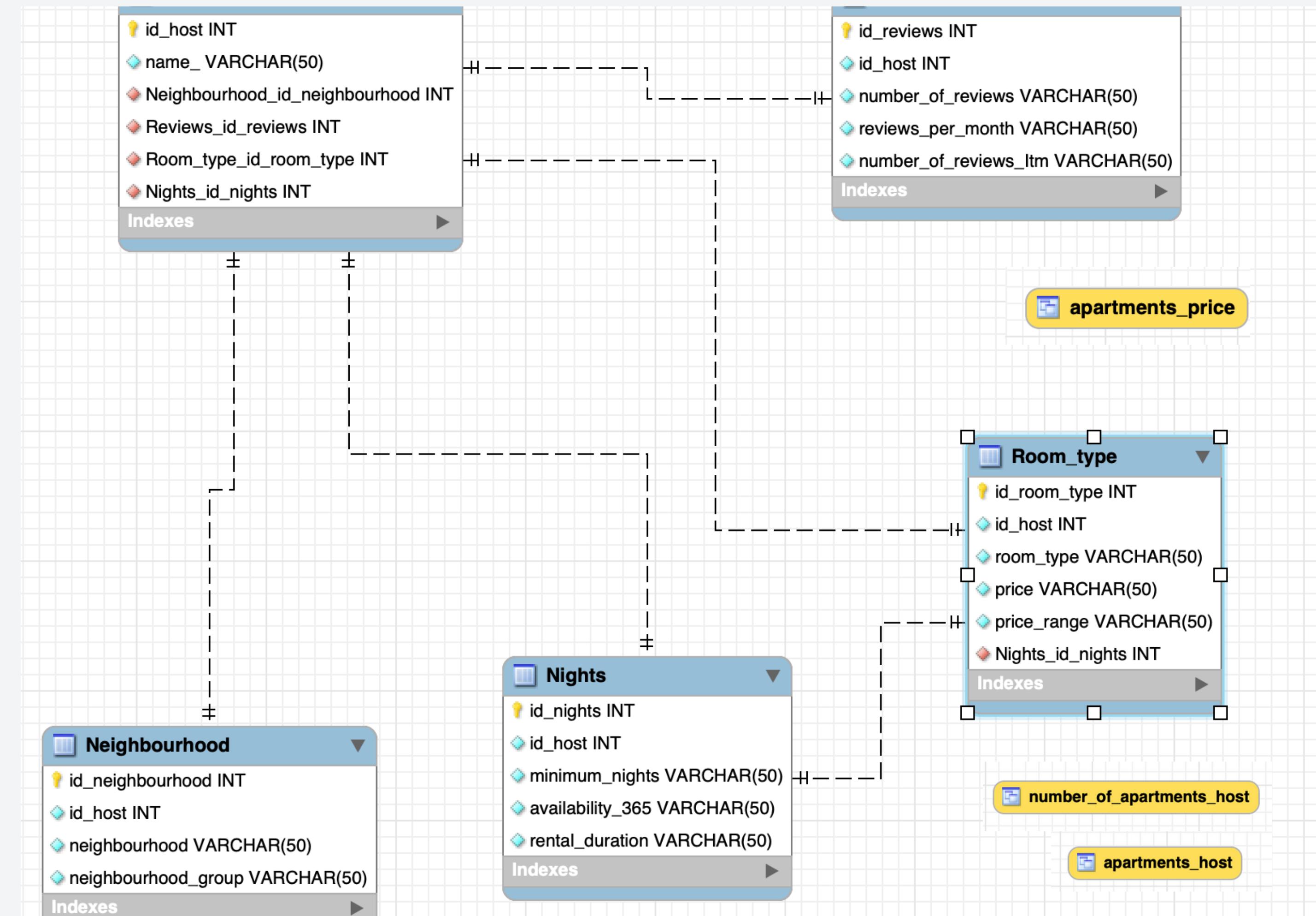
# **AIRBNB NEW YORK**

**MALGORZATA BUGAJSKA**

# CREATE RELATIONAL DB OF YOUR CHOICE WITH MINIMUM 5 TABLES



# CREATE DB DIAGRAM WHERE ALL TABLE RELATIONS ARE SHOWN



# USING ANY TYPE OF THE JOINS CREATE A VIEW THAT COMBINES MULTIPLE TABLES IN A LOGICAL WAY

**CREATE OR REPLACE VIEW**

```
apartments_host
AS
SELECT Host_1.name_,
Room_type.room_type
FROM Host_1
INNER JOIN Room_type
ON Host_1.id_host =
Room_type.id_room_type;
SELECT*
FROM apartments_host
```

	name_	room_type
▶	Junior	Private room
◀	Ronald	Private room
	Karmesha	Entire home/apt
◀	Alex	Entire home/apt
	David	Private room
◀	Lexy	Entire home/apt
	Migdalia	Private room
◀	Donna	Entire home/apt
	Ada Azra	Private room
◀	Ann-Sylvia	Entire home/apt
	Caroline	Private room
◀	Denise	Private room
	Rossy, C...	Entire home/apt
◀	Genae	Private room
	Martine	Entire home/apt
◀	Desmar	Entire home/apt
	Carol	Entire home/apt
◀	Mohamm...	Private room
	Junior	Private room
◀	Richard	Private room

# USING ANY TYPE OF THE JOINS CREATE A VIEW THAT COMBINES MULTIPLE TABLES IN A LOGICAL WAY

**CREATE OR REPLACE VIEW**

neighbourhood\_New\_York

**AS**

**SELECT** Host\_1.name\_ ,

Neighbourhood.neighbourhood

**FROM** Host\_1

**INNER JOIN** Neighbourhood

**ON** Host\_1.id\_host =

Neighbourhood.id\_neighbourhood

**Order by** neighbourhood **DESC;**

**SELECT\***

**FROM** neighbourhood\_New\_York;

	name_	neighbourhood	room_type
►	Junior		Private room
	Ronald		Private room
	Karmesha		Entire home/apt
	Alex		Entire home/apt
►	Carol	Williamsbridge	David
	Rossy, Carmen...	University Heights	Lexy
	Donna	Spuyten Duyvil	Migdalia
	Ronald	Soundview	Donna
	Migdalia	Soundview	Ada Azra
	Caroline	Port Morris	Ann-Sylvia
	Martine	Port Morris	Caroline
	Karmesha	Parkchester	Denise
	Ann-Sylvia	Norwood	Rossy, C...
	Junior	Mount Hope	Genae
	Junior	Mount Hope	Martine
	David	Mott Haven	Desmar
	Desmar	Mott Haven	Carol
	Richard	Longwood	Mohamm...
	Ada Azra	Fordham	Junior
	Mohammed	Fieldston	Richard
	Genae	Concourse Village	
	Denise	Claremont Village	
	Alex	City Island	
	Lexy	Bronxdale	

# PREPARE AN EXAMPLE QUERY WITH A SUBQUERY TO DEMONSTRATE HOW TO EXTRACT DATA FROM YOUR DB FOR ANALYSIS

```
USE Airbnb_New_York;  
SELECT id_host,  
minimum_nights,  
rental_duration  
FROM Nights  
WHERE availability_365=0;
```

	id_host	minimum_nigh...	rental_durati...
▶	3	30	Mid-term
◀	6	30	Mid-term
	10	60	Long-term
◀	11	30	Mid-term

# CREATE A STORED FUNCTION THAT CAN BE APPLIED TO A QUERY IN YOUR DB

```
CREATE FUNCTION QualityItem(item NUMERIC(8,2))
RETURNS CHAR (50)
DETERMINISTIC
BEGIN
DECLARE myItem CHAR(100);
IF item <60 THEN
SET myItem = "low_quality";
ELSEIF (item >=60 AND item <=220) THEN
SET myItem = "medium_quality";
ELSEIF (item >=220 AND item <=365) THEN
SET myItem = "high_quality";
END IF;
RETURN (myItem) SELECT id_host, availability_365,
QualityItem(availability_365)
FROM Nights
ORDER BY availability_365 DESC;
```

id_host	availability_365	QualityItem(availability_365)
5	83	medium_quality
12	75	medium_quality
2	365	high_quality
20	364	high_quality
9	363	high_quality
7	35	low_quality
17	348	high_quality
8	336	high_quality
4	32	low_quality
18	311	high_quality
13	3	low_quality
16	274	high_quality
15	2	low_quality
1	169	medium_quality
19	169	medium_quality
14	143	medium_quality
3	0	low_quality
6	0	low_quality
10	0	low_quality
11	0	low_quality

# ADVANCED OPTIONS



# PREPARE AN EXAMPLE QUERY WITH GROUP BY AND HAVING TO DEMONSTRATE HOW TO EXTRACT DATA FROM YOUR DB FOR ANALYSIS

```
USE Airbnb_New_York;  
SELECT neighbourhood  
FROM Neighbourhood  
GROUP BY neighbourhood  
HAVING neighbourhood LIKE "%Vill%";
```

neighbourhood
Claremont Village
Concourse Village

```
USE Airbnb_New_York;  
SELECT price  
FROM Room_type  
GROUP BY price  
HAVING price > "$ 40,00";
```

price
\$ 94,00
\$ 80,00
\$ 60,00
\$ 50,00
\$ 45,00
\$ 92,00
\$ 90,00
\$ 99,00

name_
Martine

```
USE Airbnb_New_York;  
SELECT name_  
FROM Host_1  
GROUP BY name_  
HAVING name_ = "Martine";
```

# CREATE A VIEW THAT USES AT LEAST 3-4 BASE TABLES; PREPARE AND DEMONSTRATE A QUERY THAT USES THE VIEW TO PRODUCE A LOGICALLY ARRANGED RESULT SET FOR ANALYSIS

```
CREATE OR REPLACE VIEW apartments_price
AS
SELECT Room_type.room_type,
Nights.rental_duration, Room_type.price_range
FROM Nights
INNER JOIN Room_type
ON Nights.id_nights = Room_type.id_room_type =
Room_type.id_room_type;
SELECT*
FROM apartments_price;
```

room_type	rental_durati...	price_range
Private room	Short-term	Cheap

# CREATE A VIEW THAT USES AT LEAST 3-4 BASE TABLES; PREPARE AND DEMONSTRATE A QUERY THAT USES THE VIEW TO PRODUCE A LOGICALLY ARRANGED RESULT SET FOR ANALYSIS

```
USE Airbnb_New_York;  
SELECT id_host, room_type, price  
FROM Room_type  
WHERE price_range='Normal';
```

	id_host	room_type	price
▶	3	Entire home/apt	\$ 195,00
◀	5	Private room	\$ 185,00

# IN YOUR DATABASE, CREATE AN EVENT AND DEMONSTRATE HOW IT RUNS

```
USE Airbnb_New_York;  
SHOW EVENTS FROM Airbnb_New_York;
```

```
USE Airbnb_New_York;  
CREATE EVENT IF NOT EXISTS NewDate  
ON SCHEDULE EVERY 1 MINUTE  
STARTS CURRENT_TIMESTAMP + INTERVAL  
10 MINUTE  
DO  
INSERT INTO  
Neighbourhood(neighbourhood)  
VALUES ('Soundview');
```

Db	Name	Definer	Time zone	Type	Execute at	Interval value	Interval field	Starts	Ends	Status	Originator	character_set_cli.	collation_connecti...	Database	Collation
Airbnb_New_York	NewDate	root@localhost	SYSTEM	RECURRING	NULL	1	MINUTE	2024-02-14 00:52:43	NULL	ENABLED	1	utf8mb4	utf8mb4_0900_ai_ci	utf8mb4_0900_ai_ci	

# CREATE A STORED FUNCTION THAT CAN BE APPLIED TO A QUERY IN YOUR DB

```
USE Airbnb_New_York;  
DELIMITER //  
CREATE PROCEDURE QualityData ()  
BEGIN  
SELECT id_host, room_type, price,  
price_range  
FROM Room_type  
WHERE room_type LIKE '%En' OR price LIKE  
'%80%'  
ORDER BY price DESC;  
END //  
DELIMITER ;  
CALL QualityData();
```

	id_host	room_type	price	price_range
	6	Entire home/apt	\$ 80,00	Cheap
	16	Entire home/apt	\$ 80,00	Cheap
	18	Private room	\$ 80,00	Cheap



**SQL PROJECT**

**THANK YOU**

**MALGORZATA BUGAJSKA**