

Database for Renting Apartments and Bedrooms

Finalization Phase

Database Management Functionality:

To can gain information to make decision. Several examples:

1. To analyse: Did too high cancelation charge relate to low booking quantity? Did low cancelation charge relate to high booking quantity? From data below, seems yes.
Low cancelation charge attract 7 bookings, high cancelation charge only attract 2 bookings.

```
1 • SELECT COUNT(bookingID) FROM cancelation NATURAL JOIN booking
2 WHERE cancel_charge <=0.2
3
```

COUNT(bookingID)
7

```
1 • SELECT COUNT(bookingID) FROM cancelation NATURAL JOIN booking
2 WHERE cancel_charge >= 0.8
3
```

COUNT(bookingID)
2

2. To ban guests who received too many bad reviews from good hosts with good property rating. From data below, we can't trust bad review which came from bad host ID#12 for guest ID#9, since host with ID#12 bad review from other guests.
But seems guest with ID#4 and ID#6 are really bad guests, since bad reviews came from good hosts ID #17 and #15 who received.
If guest with ID #4 and #6 receive more negative reviews from more hosts, marketplace can ban those guests temporarily or permanently.

```
1 • SELECT guestID,hostID,guest_review,propertyID,cleanlines,communication,pvalue,service
2 FROM guest_review NATURAL JOIN property_host NATURAL JOIN property_review
3 WHERE guest_rate <2
4
5
```

guestID	hostID	guest_review	propertyID	communication	pvalue	service
4	17	terrible guest	1	9	9	8
6	15	bad guest	7	7	7	8
9	12	weird guest	8	4	3	4
13	8	very bad guest	11	5	6	5

3. To decrease commission from inactive host (host_active=0) to attract them to be more active.

```
1 • SELECT hostID, host_lastname, host_firstname,host_active,host_join_date
2 FROM property_host
3 WHERE host_active = 0
4
5
```

hostID	host_lastname	host_firstname	host_active	host_join_date
6	Ying	Fa	0	2021-07-06 00:00:00
11	Hikari	Eiko	0	2021-07-11 00:00:00
14	Leon	Karl	0	2021-07-14 00:00:00

- To know in which city/ which country send marketing team to get more hosts to join the marketplace.
- To know if there are too much payment's error within certain period.

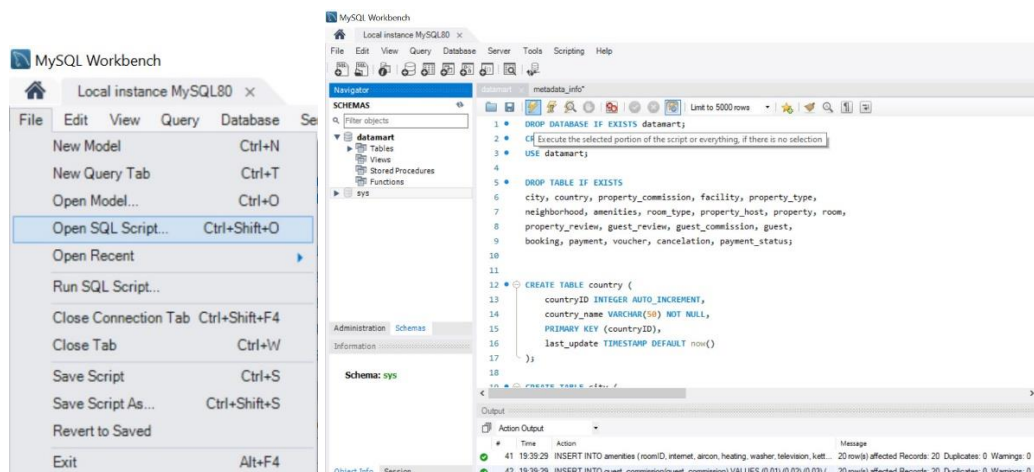
```
SELECT payment_statusID, payment_status
FROM payment_status
LIMIT 4
```

payment_statusID	payment_status
1	ENTRY
2	PROBLEM IN ENTRY
3	ON HOLD
4	CREDIT CARD PROBLEM

And many more info we can gET from the database.

Installation:

From MySQL click File, Open SQL Scripts, choose “datamart.sql” file, click “execute” icon to Run the scripts, then click “refresh” button in SCHEMAS.



Metadata:

Using scripts below to get metadata info from specific table:

```
1 • SELECT TABLE_NAME, COLUMN_NAME, IS_NULLABLE, DATA_TYPE, NUMERIC_PRECISION,
2     COLUMN_TYPE, COLUMN_KEY, EXTRA
3     FROM information_schema.COLUMNS
4     WHERE TABLE_NAME = 'booking';
5
```

	TABLE_NAME	COLUMN_NAME	IS_NULLABLE	DATA_TYPE	NUMERIC_PRECISION	COLUMN_TYPE	COLUMN_KEY	EXTRA
▶	booking	bookingID	NO	int	10	int	PRI	auto_increment
	booking	roomID	YES	int	10	int	MUL	
	booking	guestID	YES	int	10	int	MUL	
	booking	hostID	YES	int	10	int	MUL	
	booking	booking_date	YES	timestamp	NULL	timestamp		
	booking	checkin_date	YES	date	NULL	date		
	booking	checkout_date	YES	date	NULL	date		
	booking	cancellationID	YES	int	10	int	MUL	
	booking	free_cancel_date	YES	datetime	NULL	datetime		
	booking	last_update	YES	timestamp	NULL	timestamp		DEFAULT_GENERATED