Finalization Phase: Project Data Mart

To GitHub repo click here

Installation Manual

- The MySQL documentation and user manual are to be found here.
- The MySQL Workbench can be downloaded here.
    - Please make sure to use the same port

Metadata

```
SHOW TABLE STATUS FROM Airbnb
```

Table	Rows	Avg_row_length	Data_length	Index_length	Create_time
address	20	819	16384	65536	17/05/2022 12:36
amenities	20	819	16384	0	17/05/2022 12:51
booking	20	819	16384	32768	17/05/2022 12:54
city	22	744	16384	16384	17/05/2022 12:37
coordintates	20	819	16384	0	17/05/2022 13:32
country	21	780	16384	0	08/05/2022 19:19
images	50	327	16384	16384	17/05/2022 12:51
language	10	1638	16384	0	06/05/2022 18:07
messages	25	655	16384	32768	17/05/2022 12:56
neighborhood	20	819	16384	32768	17/05/2022 12:35
number_guests	20	819	16384	0	17/05/2022 12:51
payment_method	20	819	16384	0	17/05/2022 13:33
price	20	819	16384	0	17/05/2022 12:52
property	20	819	16384	65536	17/05/2022 13:28
review_rating	50	327	16384	32768	17/05/2022 12:52
rooms_beds	20	819	16384	0	17/05/2022 13:27
social_media	20	819	16384	0	17/05/2022 12:54
type_of_place	20	819	16384	0	17/05/2022 12:54
user	30	546	16384	32768	17/05/2022 12:53
wishlist	20	819	16384	16384	17/05/2022 12:53
wishlist_has_property	20	819	16384	32768	17/05/2022 12:53

Requirements

The database model meets all criteria for submission.

- **The model should contain at least 20 entities.**
    - It contains 21 entities

- **The model should contain 2-3 triple relationships (Join over three tables.).**
    - See `address` table relationships for example
- **The model may also contain recursive relationships. Assign suitable attributes to the entities and mark the key attributes.**
    - The `messages` – `user` relationship displays a recursive where two attributes use the same FK with different values.
- **Specify all cardinality specifications in a notation of your choice (e. g. Chen notation)**
    - References in the conception phase as “Airbnb5_ERD.png”
- **Short description of your current attributes in a data dictionary (short description of the data attributes and data types are appropriate).**
    - Data dictionary created with SQL statement, referenced in the document “data_dictionary_script.sql”

Process documentation

Creating the database started with creating the conceptual model first. In the conception phase, I stated that a separation between guests, hosts, and properties would be the focal point of the database. However, it turned out that separating guests and hosts by separate tables is unnecessarily complex and reduces the efficiency of the DataMart. Therefore, a `user` table holds a BOOLEAN which separates hosts from guests.
The `properties` turned out to be just as important as it is, and it deserved its separate status with supplementary tables such as `amenities`, `rooms_beds`, or `type of place`. Most PK in supplementary TABLES are FKs using property_id. This is due to the 1:1 relationship that the property table has to many entities.

The `address` table is divided into its sub-entities, country, city, neighborhood, and coordinates.

Adjustments

To finalize the project after phase 2, I amended some column names in order of normalization. Some FKs and PKs had different syntax which needed to be fixed.