Athens University of Economics and Business
Department: Computer Science
Course: Databases
Academic Year: 2019-2020
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3rd Assignment: Exploring Airbnb Data

Goal:

Explore the Airbnb data through SQL.

Input:

A Postgres database that is populated with the Airbnb staging tables from the previous assignment.

Desired Outputs:

- 12 SQL queries that include **inner and outer joins, where, order by, group by, limit, min, max, avg, distinct, like, between.**
- A short description of what each query does in plain English, as well as the output rows of each statement.
- Calendar, Listings, Reviews, Neighbourhoods and Geolocation tables must be used at least once in the queries.
- At least 8 queries must contain an inner join.
- At least 2 queries must contain an outer join.

Tools you need:

- Postgres psql or/and pgAdmin

Hints:

- Place all SQL queries in a file named simple_queries.sql
- Add short descriptions to the same file in the form of comments. For example

```
/*

2) Find number of airbnb listings for each host with reviews_per_month over 1.5

Output: 2610 rows

*/

SELECT host_id,host_name,COUNT(id) AS number_of_reviews_per_month
FROM "Listings"
WHERE reviews_per_month BETWEEN 1.5 AND(
SELECT max(reviews_per_month)
FROM "Listings" )
GROUP BY host_id,host_name
ORDER BY count(id) DESC;
```

- Run and test each query on your Airbnb database
- Ensure that each query returns a non-empty result test
- Ensure that each query is not trivial
- Use the command **\i <full_path/filename>** in psql to run a SQL script. For example, **\i /home/db_course/simple_queries.sql.**

Useful Links

- Select Statement https://www.postgresql.org/docs/9.6/static/sql-select.html