

Athens University of Economics and Business  
Department: Computer Science  
Course: Databases  
Academic Year: 2019-2020  
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### **3<sup>rd</sup> 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 pgAdmin

## Hints:

- Place all SQL queries in a file named simple\_queries.sql
- Add the 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>