Databases Project – Spring 2019

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# Deliverable 1

## Assumptions

We made no assumption concerning the correctness of the data, we checked every field of every CSV file. The type of each field has been checked and each line containing a wrong input (i.e. missing mandatory field, negative price,…) has been kicked out of the dataset.

We defined some mandatory fields, listed below.

Listings: listing\_id, listing\_url, listing\_name, host\_id, host\_url, host\_name

Reviews: all fields are mandatory

Calendar: all fields except price are mandatory

## Entity Relationship Schema

<In this section you should have figure of the ER schema as well as descriptions about entities and relations>

### Schema

The schema can be found here : <https://github.com/hedi-sassi/rbnb_db_project/tree/master/ER>

### Description

<Describe all the choices you made for Entities and Relationships>

## Relational Schema

### ER schema to Relational schema

The schema can be found here : <https://github.com/hedi-sassi/rbnb_db_project/tree/master/relational_model>

<Describe the transition from ER schema to Relational schema>

### DDL

<Provide the DDL>

## General Comments

<In this section write general comments about your deliverable (comments and work allocation between team members>

# Deliverable 2

## Assumptions

<In this section write down the assumptions you made about the data. Write a sentence for each assumption you made>

## Data Loading

## Query Implementation

<For each query>

### Query a:

#### Description of logic:

<What does the query do and how do I decide to solve it>

#### SQL statement

<The SQL statement>

## Interface

### Design logic Description

<Describe the general logic of your design as well as the technology you decided to use>

### Screenshots

<Provide some initial screen shots of your interface>

## General Comments

<In this section write general comments about your deliverable (comments and work allocation between team members>

# Deliverable 3

# Assumptions

<In this section write down the assumptions you made about the data. Write a sentence for each assumption you made>

## Query Implementation

<For each query>

### Query a:

#### Description of logic:

<What does the query do and how do I decide to solve it>

#### SQL statement

<The SQL statement>

## Query Analysis

### Selected Queries (and why)

#### Query 1

<Initial Running time:

Optimized Running time:

Explain the improvement:

Initial plan

Improved plan>

#### Query 2

<Initial Running time:

Optimized Running time:

Explain the improvement:

Initial plan

Improved plan>

#### Query 3

<Initial Running time:

Optimized Running time:

Explain the improvement:

Initial plan

Improved plan>

# Interface

### Design logic Description

<Describe the general logic of your design as well as the technology you decided to use>

### Screenshots

<Provide some initial screen shots of your interface>

# General Comments

<In this section write general comments about your deliverable (comments and work allocation between team members>