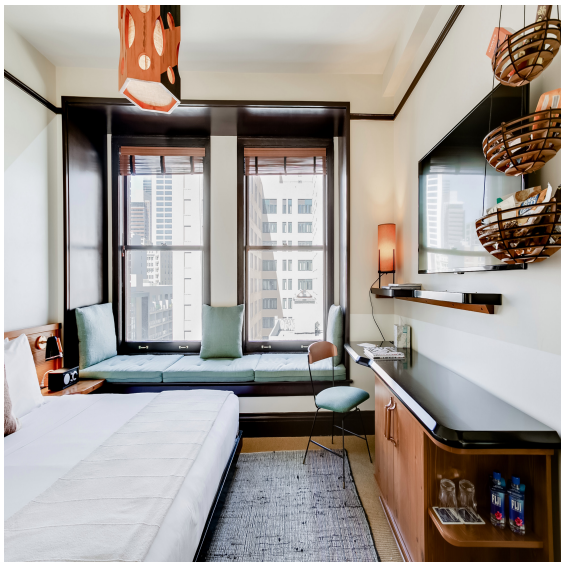
laSalle
UNIVERSITAT RAMON LLULL

Database Systems



Practical Assignment 1 - LS Eirbianbi

October 28, 2019

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1 Introduction

LS Eirbianbi is an online marketplace for arranging or offering cheap lodging. The target of the company are the students and since his purchasing power is low, the company has grown enormously during the last few years.

During these years, they have been taking a complete record of the apartments that have passed through the platform. As they don't have any engineer nor database manager, they thought about saving the data in a rudimentary way, CSV files.

In order to continue growing, they want to analyse all the data they have recollected to improve the platform, but not surprisingly, they have realized it is impossible to analyse the data using these huge CSV files.

To solve this problem, they have contacted us to help them structuring all the data in a relational model that makes them able to work with the data. The two things that they say we need to consider are that the database must be normalized and scalable.

2 Provided data

The provided data that they have sent to us are three huge CSV files:

- ***apartments.csv:*** We are told that this file contains all the information about all the apartments posted on the platform.
- ***hosts.csv:*** We are told that this file contains information about the hosts of the apartments posted on the platform.
- ***review.csv:*** This file contains the reviews that the users have given to the apartments.

We are told that the ids that appear in the files are insignificant so we don't need to keep them.

Furthermore, they said that the structure of the data is simple: There are a lot of apartments, where each one has a host. When a student rents an apartment, he can leave a review of the experience he had on it.

3 Assignment

The principal task is to structure the data provided in a rudimentary way into a relational model, intuitive, scalable and normalized.
You will need to develop:

- **A conceptual model**
- **A relational model**
- **A physical model**
- **A script to import the data provided into the constructed model**

The deadline of the assignment will be on December 1st. The delivery name will follow the next format:

Fase1_login1_login2.zip

The .zip must contain the documentation of the project, a script to create the structure of the relational database and a script that imports all the data to this structure.
The documentation must contain:

- **Cover with the name and login of the members of the team**
- **Table of contents**
- **Conceptual model**
- **Relational model**
- **Physical model**
- **Importation verification. Prove that the information has been sucsessfully imported into your proposed database**
- **Conclusions**

4 Considerations and mandatory requirements

Here is a list of the things you must accomplish to opt to pass.

- The model must be normalized
- You must justify each table of your design
- You must justify the chosen decisions while importing the data to your structure. (Ex: At this point we could choose between importing all the data even though it was incomplete or importing only the data that was complete. In this query you can see we chose the second option as we are skipping the incomplete rows.)
- The models must be presented in a digital manner.
- The presented document must be in a PDF format, written in a formal language with no spelling errors
- The delivered .ZIP must contain all the mentioned aspects. If there is a missing document or a missing section the student will not pass the assignment.

Tip: Consider investigating what *regexp_split_to_table* tool does.