Web based Rental Agent

Undergraduate Thesis in Computer Science
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Contents

Chapter 1

Introduction

1.1 Aim

The aim of this thesis is to design and develop a prototype for a web based service that will allow registered users to advertise short term room rentals as well as browse a common list of rooms on offer. The service will offer a limited administration panel for the users. This admin service will enable users to track their bookings, allow home owners to manage client bookings as well as offer all clients an opportunity to rate a room that has been visited as well as for home owners to rate the stay of their respective clients

(here we need to expand on the introduction and explain in concrete terms, what it is that we are trying to develop as well as discuss the chapters that follow. The discussion of the chapters should be brief and to the point, followed by introductions to each chapter. Another useful thing to add would be a word list that will help eliminate some confusion)

Business Analysis

Problem

Home owners who are in possession of excess floor space in the form of unused rooms or annexes to their homes) could capitalize on the major increase in human traffic across all the borders of the European Union[1] as well as internally of each country in Europe by offering these travelers short term accomodation at a "reasonable" or suitable rate for both the traveler and the owner. The problem for such home owners is the extra overhead costs spent in advertising costs and/or other third parties(from here on referred to as "third parties") that help facilitate these transfers. Sometimes the costs are too large for smaller owners to handle and thus they lose their share of the market as well as their share of the total revenue spent on accomodation by the above mentioned traveler.
In the same way the European traveler who is experiencing a squeeze in income is looking for cheaper accomodation and yet keeping the same or similar standard of accomodation as previously when spending was not so limited.

Existing Solutions

There is a range of solutions available for the home owner to make use of. An example of an existing solution is Airbnb(http://airbnb.com), which offers users an opportunity to rent out a house from someone else. A popular site in Poland is booking.pl(http://www.booking.pl) which allows users to search for accomodation in a private house. These existing solutions don't offer one group of users, that is the owners of homes, a way to comment the stay of their clients and thus enabling other home owners to in some way mitigate unwanted customers(i.e destructive, not following policy etc) but at the same time limit the ad hoc discrimination of these same customers. The existing solutions don't offer the client an opportunity to swap his/her reservation with another client for what ever reason but rather charge penalty fees so as to discourage such behaviour.

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[1]Add a reference to this increase. here you can place the stats used in the flights of europe

Chapter 2

Project Design

In this section we demonstrate, using Unified Modeling Language(UML) notation, the conceptual model using "use cases" diagrams(taking the functional requirements into account), The architecture of the System and database design using Class Diagrams and Sequence Diagrams between key processes.(list and expand on the functional requirements there where necessary)

2.1 Functional Requirements

- registration of admin and clients
- enable logging in and logging out
- allow users(both admin and clients) to view dashboard
- allow clients to add/revoke a rental offer
- allow clients to add/remove details of rental offer
- allow clients to add/remove photos of offer
- allow admins to browse clients and client details
- allow admins to edit content of user
- allow users to browse offers based on criteria
- allow users to make bookings and confirm bookings
- allow users to rate room based on criteria offered
- allow landlords to anonymously rate client
- allow users to edit personal details
- create password resetting facilities
- allow basic content management
- create easy to use application programming interface(API)
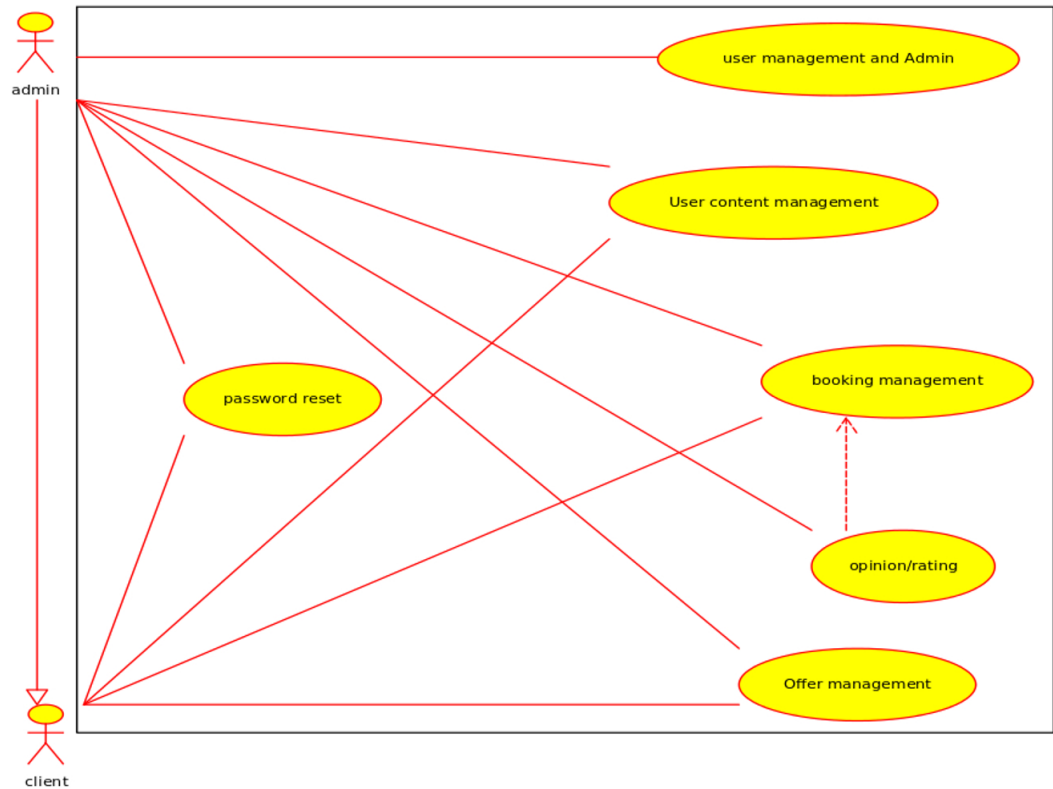
2.2 Users, roles and use case

Figure 2.1: details

The project consists of two groups of users whom access and modify a database of information via a user interface. These users are:

- Administrator
- Client(landlord and regular)

2.3 Architecture

2.4 System Database Design