# Hotel Revolution 2014s

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**Abstract**

The software aim to help the staff of an hotel to manage the rooms of the structure.

It will help to identify free rooms in a particular period of time thus helping to understand if it is possible to satisfy clients' requests.

Also it will keep count of how many days a particular client has been host of the structure helping the manager to bill accordingly.

# 1 Assigment 1

## 1.1 Name

Hotel Revolution 2014s

## 1.2 Team Member

Giovanni Pelosi, Sara Zanzottera, Gianpaolo Branca and Simone Mosciatti

## 1.3 Specification

The system will be a Back-Office information system. The system implement the functions of a Decision Support System, it will help decide what room offer to who.

## 1.4 Problem the software will solve

How to manage the booking of rooms in a big hotel, including the assigment of rooms to big groups or guest with particular request (smokers, pets, disabilities, etc...)

## 1.5 Requirements of the system

The system helps in a useful and friendly way the staff in the hotel managment.

- Will allow the reception to be quick and extremely precise in answering any inquiry from possible guests.

- Will let fast booking operation by the hotel staff.

- Will show all the possible options available for a guest.

- Will let the staff know who is guesting in a particular room.

- Will let the staff know how long a guest has been in the hotel.

- Will let the staff know which rooms will be free sooner.

- Will help to manage the revenue of the hotel, providing an interface that shows the distribution of the bookings during the years.

- Will provide two level of authentication, one from the staff and one from the manager, the manager will be able to access all the information while some sensitive information (revenue) won't be show to the staff.

## 1.6  User

The software will be used by the hotel staff, in particular by the receptionist and the manager.

The main user is know, and it will be possible to teach the staff how to use it.

Despite, the interface will be user friendly even for non-technical staff, so it will be simple for a new hire to learn quickly how to interact with the system.

The receptionist will, mainly, use the system to check the availability of the rooms in a specific period.

The manager will use the software to bill the client.

## 1.7  Note for development

Since the team is not extremely aware of the mechanics behind an hotel, we will ask to a real hotel staff feedback on the prototype of the software.

# 2 Assigment 2

## 2.1 The Client

The client of the project is a medium size hotel in China, the Jason Hotel.

## 2.2 The Task to be Undertaken

Our project aims to help hotel receptionists in their work, making easier and quicker for them to book rooms for the hotel's guests.

The software will allow them to book a rooms in few clicks, to find out precisely and immediately which rooms are free and for how many days, the general availiability of rooms in a certain period, the features of every room and so on.

It will also help the hotel owner while billing the clients, calculating automatically the price of the stay and the total revenue of the hotel in a certain period.

We will develop our software on three sides: realizing a database containing the information about hotel's rooms and their availiability, designing a graphical interface that will be user-friendly to minimize the training period of the staff and allow them to be comfortable with our software, and developing a software that will hold database's informations for the staff and help the owner to bill clients and to calculate the revenue of his hotel.

## 2.3 Requirement Analysis

The system will meet the following requirements.

### 2.3.1 Interface

1. Booking Interface

   - Intuitive and user-friendly to provide a quick answer to the client for his request, and if possible, confirm with one click the booking.

   - Has a section where fill the date of check-in and check-out and show all the rooms free for that period. The system can show many type of rooms and prices.

- Has some feature to satisfy other request, like guest disability, pet, child, smoker. For example, for a disable guest the system choose a room at the lower floor possible

- Has a form for fill the guest information, like name, passport, e-mail. If the guest can't give all the information immediately can be filled later in the room section

2. Rooms interface

- Has a section where see all the room, if they are free or occupied in the current day or a choosed period.

- Clicking on the room the user can see all the feature of the room, and also modify it if necessary, if it's booked or occupied the system show also all the guests data.

- The user can modify guests data, check-in/out time or delete the booking.

- A form can be filled with other particular requests, in case.

3. Guest Search Interface

- Has a form to fill with the name and will return all the available information about such guest.

4. Billing interface

- It can be opened only by the manager with a log-in page.

- It shows all the revenue of the hotels for a day, week, or month.

- In the main page it shows the bill for all the guest which check-out is the current day.

### 2.3.2 DataBase

- It must be pre-filled with the hotel map, with all the rooms.

- It has a first table for the rooms and some column to specify rooms occupation, type and feature.

- It has a second table for the guests information, linked with a 1-m relation with the room (a room can have many guests, but a guest can stay in only one room)

- It has a third table for the revenue of the hotel.

- (optional) all the important information can be encrypted

## 2.4    Suggested Deliverables

Not being expert on the main procedures about hotels organization, we believe that to realize this project a continuos and total collaboration among System Analysts, System Designers, System Developers and Final Users is crucial.

### 2.4.1    Management deliverables

Our intention is to organize many meetings and a documentation about Requirement Analysis in such a way to be sure:

1. To have a complete acquaintance of clients necessity and expectations.

2. To improve the communication and cooperation level among developers, designers, managers and users.

3. To give the final user the possibility to have a central role during the entire development of the system and to choose, from time to time, the best solution.

### 2.4.2    Design Document

We want to document and to maintain the presence of final users even in the design process of the system. By doing so, and by keeping in mind the Requirement Analysis, we want to meet the final users necessities. These documents will be updated for all the Design process duration.

### 2.4.3    Source Code

Our intention is to document all the development of the code, not only at a technical level, comprehensible only to the programmers, but even at a more

user friendly level. So, even final users will be able to keep under control the development of the system.

## 2.5   Technical deliverables

### 2.5.1   DataBase

We are going to use a Database Structure, divided in tables, to save the different informations like:

1. Rooms

2. Guest

3. Payments

4. Others

### 2.5.2   Interface

We will organize the system as much user friendly as possible. We will implement the main functionalities directly on the home page. These are:

1. To add / cancel a reservation.

2. To verify the availability of a room.

3. To verify payments.

4. To control general services.

### 2.5.3   Interactive Structure of the Hotel

According to clients necessity we will implement, on the home page, an interactive structure that represents the hotel. By doing so, final user will immediately have a complete view of general situation, and the possibility to select a room to know its details.

## 2.6   Outline Plan (Principal activities and Milestones)

1. (Friday 09/26) Preliminary overview of the project.

2. (Friday 10/10) Detailed system analysis, this will include:

   - The task to be undertaken.
   - The use cases.
   - Detailed explaination of the features.
   - The client who required the software.

3. (Thursday 10/23) System required analysis, it will include:

   - The detailed data modelling.
   - The detailed data analysis.
   - The detailed process modeling.

4. (Friday 11/07) Final describtion of the project, it will include:

   - The detailed explaination of the application architecture.
   - The detailed database design.
   - The datailed input of the application.
   - The detailed output of the application.
   - The user interface design.

**Hotel Evolution 2014s**

- Book Room
- Show Guest
- Modify Renotation
- Modify Guest Information
- Check Room Availability

**Login as Manager**

- Repae Billing Information
- Calculate Revenue

Check the System and Book

Bill the Client

Ask to Book a Room

Receptionist

Guest

Manager

**Guest**

| | |
|---|---|
| ◆**IDGuest** | **ID** |
| ○Name | String |
| ○Surname | String |
| ○DocumentID | String |
| ○Contact | String |

**Reservations**

| | |
|---|---|
| ◆**IDReservation** | **ID** |
| ○IDRoom | ID |
| ○IDGuest | ID |
| ○CheckIN | Date |
| ○CheckOUT | Date |

**Rooms**

| | |
|---|---|
| ◆**IDRoom** | **ID** |
| ○RoomNumber | String |
| ○PricePerNight | Int |
| ○NumGuests | Int |
| ○Smooker | Boolean |
| ○WiFi | Boolean |

**User**

| | |
|---|---|
| ◆**Name** | **String** |
| ○Password | Hash |
| ○Manager | Boolean |

Guest —1,1 ——— 1,n— Reservations —0,1 ——— n,1— Rooms