

Application Supporting Hotel Management as an Example of Web Technologies Usage

Mieszko Walerych¹, Wojciech Zabierowski²

Abstract - aim of this article is description of application supporting hotel management, which significantly helps to administration this type of building. It is designed for both sides of system users: hotel employees and guests who want to make reservation.

Keywords - application supporting hotel management, hotel, PHP programming, database for web applications

I. INTRODUCTION

In view of an enormous development of IT, especially in web applications in Poland the number of transactions made through online systems massively increased. This is due to increasing awareness of the Internet and computer operating skills of the average John Doe. This trend opens up new possibilities of creating better Web applications. This impacts on the development of technologies and tools used in such applications. The market has established several programming platforms and continues to create new solutions (this project uses the Java platform, which has the greatest platform for creating web applications).

II. SOFTWARE USED IN THE HOTELS

A hotel industry is part of economy that grows rapidly. Factors conducive to its development are: income consumers, Hotels location, quality of services, demography, competition, Advertising, culture of the country.

Therefore, the development of New Technologies hasn't skirted round that economy branch as well.

The software used in the hotel industry can be applied at every stage of customer service, both individual and collective. Using an application at the front desk can help in quick and efficient guests handling, eg.: reservations, accommodation and many more. It is a prerequisite for a trouble-free operation and to maintain a high competitiveness and increase the prestige of the object.

Integrated hotel management system is also useful for employees. The system functionality makes it possible to organization the work (work schedule). The payment system created for each employee individually allows him to access to financial resources (number of worked hours, wages, rates per hour, etc.).

Software supporting hotel management should also be characterized by simple operation, which is both efficient and

reliable tool to manage this type of object.

III. BENEFITS

Benefits of the system are:

- Allow on sales of package. User with access to the Internet will be able to book a hotel room. The system will give the opportunity to upgrade this operation by changing the date of arrival, number of days or cancel the entire activity.
- One system saves the cost of management, staff training and the whole service
- A lot of information: the ability to control all online reservations, their status, salaries for employees, etc.
- Easy and clear operation, saving time
- Opportunity cancel to rent a room at the time, for example repairs
- "Pay system" gives employees the ability to check their pay, hours worked in a given month, week and day
- Management of time to work across create of work schedules for staff
- No need to install software, just access to the Internet and installed browser
- Fast implementation and short training of staff quickly
- Status rooms control
- Calculating the cost per stay
- Ensures compatibility with different platforms (Windows, Mac, Linux,.) because it works in the browser
- Users do not need any additional software, just access to the Internet and install browser, if they want to use the system.

IV. THE SYSTEM

The system has several kinds of accounts (guest, reception, administrator, employee).

To have access to the guest resources one should correctly complete the registration. This kind of account gives us ability to book online, check personal information, accommodation and reservation. The most important feature is of course, the possibility of booking online. In order to do this you must

¹Mieszko Walerych, ²Wojciech Zabierowski, – Technical University of Lodz, Department of Microelectronic and Computer Science, wojtekz@dmcs.pl

properly fill the booking form (dates must be completed and the date of departure must be greater than Arrival), choose the room type and number of rooms.

Logging with authorization of the receptionist we have access to many features:

First is "Customers". Thanks to this option receptionist has access to information about guests' personal data. The receptionist has the ability to check the status of a particular customer. The data displayed here is divided into several parts. The first of these is personal data (name, address, phone number, etc.). Second part is the data that tells whether a person has a reservation for today. At this point, the receptionist can check the guests (it is impossible from somewhere else.).The next section applies to all bookings. This is a table showing all reservations made by the guest. The last part applies to all accommodation. These are the data showing all the guests staying in a hotel (the date of arrival and check out, the price for the stay, the number of days). The information stored here is read-only.

Next option is Reservations. Use it to check all reservations made by clients unlike Accommodation it allows to check all Accommodation made in the hotel (Accommodation story). The data are read-only.

Last feature is Updated guests. With this option, the receptionist has access to the list of guests staying at the hotel. it shows available information on the client (name, surname etc.), date of stay and occupied rooms.

Another type is an administrator account. it gives access to the advanced functions:

First of them is Add / Remove Room. The administrator has the ability to add or remove rooms.

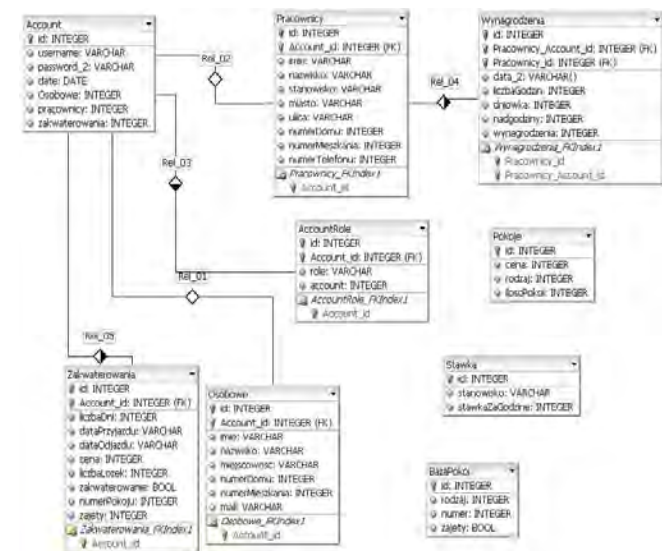


Fig. 1 Database structure [own]

Next one is Employees. The information applies to the personal data of staff and their occupation at the company. The administrator has the ability to change data in the table. At the beginning he must obviously add a new employee. To do so, he has to complete a registration form. Thanks to that, the new employee will be added to a database and his account will be created. Therefore that employee will be able to check the work schedule and salary etc.

Another feature of the system is the ability to add work schedule, which represents a very important role in personnel management. The administrator has a list of all employees and selects the specific person. Work schedules are set for 7 days. Each day consists of two shifts. The administrator has the options: "free", "first", "second" or "third party", then in the second part has the ability to add a description. After completing the entire schedule he needs to approve it.

Administrator has also the ability to define employees wages. He selects an appropriate person from the menu, then determines the number of hours worked, and overtime if applicable. Ultimately approves the entire transaction, adding a new object to the database. Date is set automatically, it is not possible to write two records with the same date.

Last option is Visualization. It generates graph illustrating the use of rooms at the hotel. The administrator can check which ones are most often used, and which are little or not used at all. It is also possible to log to the system with authorization of employee. Information contained herein are read-only, these include: check personal information, schedule of work and wages.

V. SUMMARY

I believe that the designed system can significantly simplify the management of the hotel. Not only by allowing customers to book a room but also facilitating the work of the staff. Due to a rich package of features it can be used in other tourist objects such as motels, guest houses or holiday homes. It does not require installing any additional software because it is webapplication. The system was designed so that you can easily increase its functionality by making it more flexible. Thanks to this it will meet new market requirements. A nice layout is an additional advantage encouraging to use it. Large intuitiveness and ease of use also speaks in favor of the designed system. I think that each hotel or other tourist resort should use such a system. It allows you to save time and money because most operations can be settled without leaving home.

VI. REFERENCES

- [1] A.Hemrajani, „Java. Tworzenie aplikacji sieciowych za pomocą Springa, Hibernate i Eclipse”, 2007
- [2] C.Bauer, G.King „Hibernate w akcji”, 2007
- [3] B.Eckel “Thinking in Java”, 2006