

Design and Realization of Hotel Management System

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Abstract

Under the environment of informatization, key of current development of hotel industry is to effectively design and realize hotel management information system and make clients fulfill online hotel reservation more conveniently. This study provides support for the design and realization of hotel management information system through computer technology, database technology and software architecture technology. It also determines system work flow chart, system business process and data analysis of system by analyzing demand of hotel management information system and attaches importance to hotel service, which provides basis for establishing hotel management system.

Keywords: Hotel management information system; Individual service; Design.

1 Introduction

As computer and internet is widely applied, hotels begin to set up their own portal system. Especially at the time of rapid development of electronic commerce, reserving hotel-related products and services by internet has become a new reservation means. With the rapid development of network technology, more and more hotels tend to input a large amount of manpower and material resources combined with emerging network technology to develop online booking business and electronic commerce war begin [1]. Portal system of hotel industry is facing huge challenge. Therefore, hotel managers should realize that, current hotel portal systems should not only fully advertise their own brands in internet space, but also satisfy different demand of customers constantly [2]. Different customers have different purchasing behavior, and hotel portal system should satisfy the consumption demand of different customers as possible. Hotels should provide more individual service and diversified service to improve the satisfaction of customers, thereby transform potential customer into practical customers and cultivate loyal customers. For instance, Hilton Hotels Corp has nearly one hundred of history and has more than 520 branches and 475,000 guest rooms around the world; it can adopt different management ideas and set up portal system with regional characteristics according to the cultural background of different regions [3]; its system can be clear at one glance and reduce browsing time.

Design and realization of hotel management system aims to realize reservation function of hotel system and systematic internal affairs management. It not only saves manpower and material resources but also flexible and informationize the management means. First, we can make hotel portal system more individual. More

importantly, we should pay attention to individual needs of customers. System designs should from the perspective of customers, meet their demand and provide considerate service as possible. For example, customers in tourist hotel mainly focuses on whether the hotel can provide traveling related service information, introduction of road conditions, weather forecast for the next 24 hours, etc.. In fact, hotel guests require not high on the hotel itself. Most of them check into the hotel because of official business or other factors and they need comfortable feeling. Smart hotel managers will provide considerate services for customers from the perspective of psychological need of customers, including intimate dinner, convenient travel information and considerate weather forecast, thereby win the customers as well as the potential customers and bring more benefits for hotel. Secondly, design and realization of hotel management information system can make reservation process more refine and services more considerate, reflecting on hint of hotel regulations, payment method and reservation completed [4].

First, hint of hotel regulation. For instance, customers are hinted check-out time, delay charge and permission of bringing pet when entering reservation system and given relative hint when reserving successfully.

Secondly, payment method. When customers check in the hotel, hotel should inform them the possible charge of services before check-in and after check-in, for example, whether drinking water is free and fruit at their own expenses should indicate clearly.

Thirdly, reservation completed. When customers complete the whole operation process of hotel reservation, hotel should show the page of reservation completed or welcome to our hotel in the last process, inform customers with reservation completed by phone, E-mail, QQ, weixin, etc. and confirm again information

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provided by customers and reservation information to lower appearance probability of no-show.

Hotel management information system can connect every parts of hotel into network, store data information and share data material with every site. It can not only provide reliable basis for analysis of business condition, human resource allocation, cost confirmation and price for hotel manager and decision maker, but also make the hotel management more scientific and standard [5]. Hotel managers should understand the business condition of hotel in real time as well as distribution of customers and provide direct basis for final operating decision. For instance, we can know which room type has the most number of customers and provide scientific basis for room type adjustment by understanding and analyzing the check-in condition of different room types; it can also lay good basis for increasing income and reducing expenditure, improving economical benefits and working efficiency of hotel. The investigation of American Production and Inventory Control Society, Inc. indicates that, application of computer management can lower 30% to 40% of stock, improve 10% to 15% of labour productivity and enhance more than 1.5 times of capital velocity [6].

2 Database Design

System in this study is mainly to realize online reservation function; therefore database design is mainly to realize hotel reservation. Therefore, hotel management information system E-R figure is mainly to confirm the business of check-in. When customers complete hotel reservation and check in, then the record will generate [7]. The record mainly contains customer information registration, check-in time, room, occupancy-days and service charge including detailed project, details of charges, quantity, etc. When there is no record generating, then it enters service order and step into the process of next step. When service order confirms registration, it returns to customer interface. Then customers confirm information of check-in room again and finally confirm the payment. System operator records information of check-in room of customer including whether service order generates or not. All the information are written into database, and stored and fed back to front desk staff. Hotel managers assign service items and inform service staff to provide services according to the services and check-in room customers needed. Expense generated by services is summarized to accounts to generate detailed order, consumption time and expense. Relationship of front-desk staff, registration form and preplot are of 1: N. The relationship between hotel manager table and service items assignment table is N: M. The relationship between room table and customer table is 1:N. Details are shown in Figure 1.

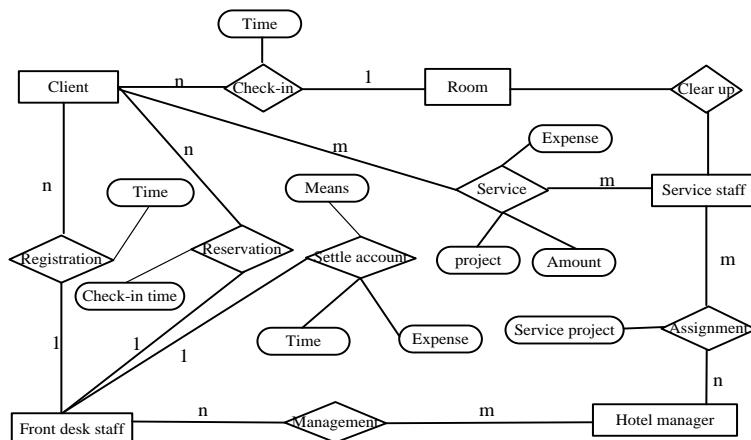


Figure 1: Hotel management information system E-R figure

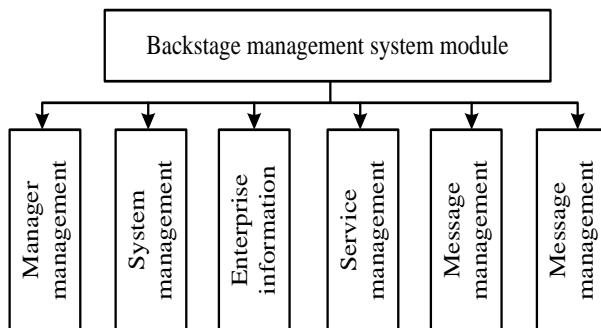


Figure 2: Framework diagram of backstage management system

This part mainly discusses backstage management system design of hotel management information system. The framework is as shown in Figure 2. Backstage management system design mainly includes modules such as manager information, system management, enterprise information, service information, news management and message management.

User name and verification code need to fill into system login page. If the fillout is correct, user can enter the system. If the fillout is wrong, system will give hint of “invalid user name or password error”. The login process of the system is as shown in Figure 3.

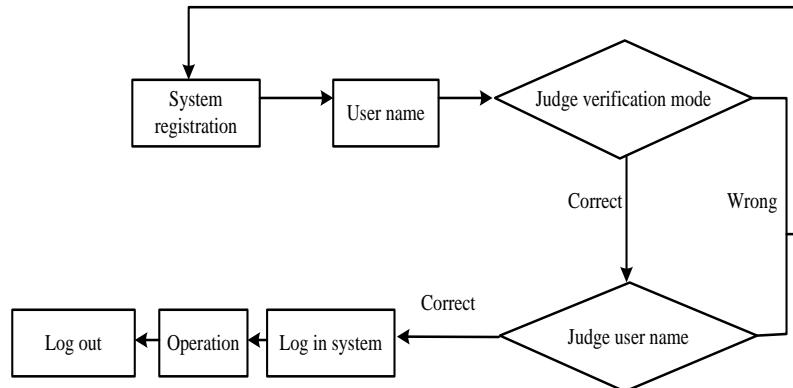


FIGURE 3: Flow chart of backstage management system

3 Service Management Module

The final purpose of hotel is to serve customers, therefore the core of hotel management system is to establish hotel management module.

Service management module designed in this study mainly includes service item types, service item management, and adding service project, check service item, and add room price and room reservation management.

Service item types mainly manages the set of product types. Detailed columns contain room service, catering

service, sports entertainment and banquet service. Managers have operating authorization such as adding subtopic, modification and delete. The authorization of adding sub-column is to add subclass: choose from the large class and input the name of subclass in secondary class column; modification authorization is to modify the name of primary class column; delete authorization is to delete primary class column and then delete the secondary class contained by that primary class. Specific system operation interface is as shown in Figure 4.

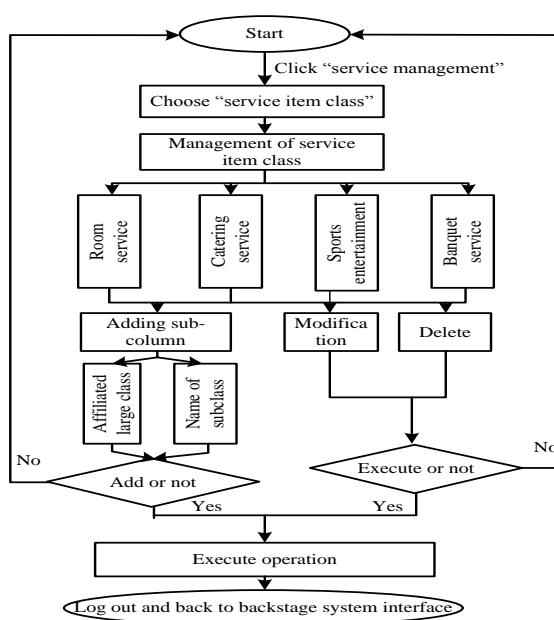


Figure 4: Flow chart of service item class management

In the established service management module, we can add modules of service items, room price, room reservation management, message management. Every module illustrates program operation flow with the aid of the flow chart.

4 Conclusion

Hotel management information system concerns whether a hotel can develop as well as the prospect of long-term development of hotel, and it is the core of hotel's long-

term development [8]. Hotel industry so far is dedicated in developing more effective management information system which can bring update of management and considerable economical benefits for hotel [2]. Notably, with the rapid development of network information, most industries tend to develop e-commerce. Design and realization of hotel management information system, especially online hotel reservation or room service, is a hotspot of current hotel industry development and is also the value of this study.

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