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HOTEL MANAGEMENT SYSTEM

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ABSTRACT

C++ is a general- purpose level programming language. It has imperative and general programming features also providing facilities for low memory manipulation. The project, Hotel management system is a web-based application. The system will help the administrative staff that is executive of the hotel to keep the daily record details of the customers in a proper database. This program ensures to accessall the operations from check-in to check-out. When a guest make a reservation, all the reservation details are recorded in a hotel register. This program hotel management will remove the hectic task of customers and executive for searching and booking rooms. At that time of check-out of customer, calculations of bills are done manually

Keywords: C++ manage room, check in room, available room, search customer, check out.

I.   INTRODUCTION

This is a Project work undertaken in context of partial full fillment of MCA.I have tried my best to make the complicated process of Online Hotel Management System as simple as possible using Structured & Modular technique & Menu oriented interface. I have triedto design the software in such a way that user may not have any difficulty in using this package & further expansion is possible without much effort. Even though I cannot claim that this work to be entirely exhaustive, the main purpose of my exercise is perform each Employee's activity in computerized way rather than manually which is time consuming. I am confident that this software package can be readily used by non-programming personal avoiding human handled chance of error. This project is used by two types of users

- online users
- administrator(management of the hotel)

Online users can see the required articles or news. Administrator can maintain daily updates in the hotel records. Administrator is must bean authorized user. He can further change the password. There is the facility for password recovery, logout etc. The main aim of the entire activity is to automate the process of day to day activities of Hotel like Room activities, Admission of a New Customer, Assign a room according to customer's demand, checkout of a computer and releasing the room and finally compute the bill etc.The limited time and resources have restricted us to incorporate, in this project, only a main activities that are performed in a HOTEL Management System, but utmost care has-been taken to make the system efficient and user friendly. "HOTEL Management System" has been designed to computerized the following functions that are performedby the system:

Room Detail Functions
- Opening a New Room
- Modification to room assigned

Check-in and check-out Detail Functions
- Admission of New customer
- Check-out of customer
- Room assigning related to customer's need.

Statement of Customer Details
- Check-in customer
- Check-out customer
- Room Details

Total number of Customers in the Hotel
- Individual customer Report

During the past several decades personnel function has been transformed from a relatively obscure record keeping staff to central and top level management function. There are many factors that have influenced this transformation like technological advances, professionalism, and general recognition of human beings as most important resources.

A Computer based management system is designed to handle all the primary information required to calculate monthly statements. Separate database is maintained to handle all the details required for the correct statement calculation and generation. This project intends to introduce more user friendliness in the various activities such as record updating, maintenance, and searching, The searching of record has been made quite simple as all the details of the customer can be obtained by simply keying in the identification of that customer. Similarly, record maintenance and updation can also be accomplished by using the identification of the customer with all the details being automatically generated. These details are also being promptly automatically updated in the master file thus keeping the record absolutely up-to-date.The entire information has maintained in the database or Files and whoever wants to retrieve can't retrieve, only authorization user can retrieve the necessary information which can be easily be accessible from the file.

The main objective of the entire activity is to automate the process of day to dayactivities of Hotel like:
1.Room activities.
2.Admission of a New Customer.
3.Assign a room according to customer's demand.
4.Checkout of a computer and releasing the room
5.Finally compute the bill etc.
6.Packages available.
7.Advance online bookings.
8.Online Cancellation.
9.List of Regular customers.
10.Email facility.
11.Feedbacks

This project have some more features:
1.System Connectivity
2,No data duplication
3.No Paper Work Required
4.Time Efficient
5.Cost Efficient
6.Automatic data validation
7.User friendly environment
8.Data security and reliability
9.Fast data insertion & retrieval
10.Easy performance check

This project is useful for the authorities which keep track of all the users registered in a particular state. The authority can add hotel packages, room details, availability of rooms, online booking etc. The following steps that give the detailed information of the need of proposed system are:

Performance:
During past several decades, the records are supposed to be manually handled for all activities. The manual handling of the record is time consuming andhighly prone to error. To improve the performance of the Hotel Management System, the computerized system is to be undertaken. This project is fully computerized and user-friendly even that any of the members can see the report and status of the company.

Efficiency:
The basic need of this website is efficiency. The website should be efficient so that whenever a new user submits his/her details the website is updated automatically. This record will be useful for other users instantly.

Control:
The complete control of the project is under the hands of authorized person whohas the password to access this project and illegal access is not supposed to deal with. Allthe control is under the administrator and the other members have the rights to just seethe records not to change any transaction or entry.

Security:
Security is the main criteria for the proposed system. Since illegal access maycorrupt the database. So security has to be given in this project.

Description of the project
There are total seven operations that can be performed using this program efficiently.They are as follows:-

Employee operations:
Adding new room to the hotel: which requires assigning a room number,type of room whether Air conditioned or non-air conditioned, current status of room whether free or reserved and charges of room per day.

Maintaining Rooms: In this option, employee can check the all information of allthe rooms in hotel or a particular room by inputting room number and modify itsdetails, like changing status of room or the charges.

Reserving Room: here, the employee can check if any free rooms are available inthe hotel database and subsequently reserve it for a guest.

Generating Bill: here, at the time of guest checking out, the employee will get thenumber of days the guest stayed in a particular room and generate the bill to bepaid by the guest.

Customer operations:
Checking In: In this guest can enter his personal details in the database if itwishes to stay in the hotel. After inputting name, address and contact number, theguest details will be stored for future references.

Checking Out: In this option it will first ask the guest for the room number itwants to vacate and then the guest will be checked out of the room and checkouttime will be displayed.

Book Room: Here, guest will be asked which type of room he wishes for and if that type of room is available then if desired checking in procedure will beinitiated.

II. LITERATURE SURVEY

Information system:
Information system is an integrated set of components for collecting, storing, and processing data and for delivering information, knowledge, and digital products. Business firms and other organizations rely on information systems to carry out and manage their operations, interact with their customers and suppliers, and compete in the marketplace. For instance, corporations use information systems to reach their potential customers with targeted messages over

the web, to process financial accounts, and to manage their human resources. Governments deploy information systems to provide services cost-effectively to citizens. Digital goods, such as electronic booksand software, and online services, such as auctions and social networking, are delivered with information systems. Individuals rely on information systems, generally Internet-based, for conducting much of their personal lives: for socializing, study, shopping, banking, and entertainment.

Any specific information system aims to support operations, management and decision making. In a broad sense, the term is used to refer not only to the information and communication technology that an organization uses, but also to the way in which people interact with this technology in support of business processes Kroenke, D M.

There are various types of information systems, for example: transaction processing systems, decision support systems, knowledge management systems, learning management systems critical to most information systems and office information systems. Critical to most information systems are information technologies, which are typically designed to enable humans to perform tasks for which the human brain is not well suited, such as: handling large amounts of information, performing complex calculations, and controlling many simultaneous processes.

In an information system, input data consist of facts and figures, which form the System's raw material. Information is data that has been usefully processed. However, an information system does not only contain data and information. There are also other elements inside the system, which are related and are in support of one another. The presence of these related elements makes information more useful ă whereby, it can be made available, can be processed, distributed, manipulated, saved, and so on. This combination gives rise to a system, which is orderly and as such it is called an "Information System". The activity of converting data into information is called a process. An information system contains FIVE main components; the hardware, software, data, process and human.

Hardware: Information system's hardware refers to all types of hardware and the media used for input, processing, managing, distributing and saving information that are being used in an organisation. Examples of the hardware are the physical computers, networks, communication equipment, scanners, digital drives, and so on.

Software: Software consists of two categories; the system software and the application software.
System Software controls the computer and contains the operating system and device drivers, which can communicate with the hardware. It can also modify data into a new form, prevent viruses and make copies.

Application Software contains programs which can help users and enable companies to perform business functions. Users can increase productivity with the presence of application software such as spread sheets, word processing, ordering systems, and accounts receivable.

Data: Data refers to the raw facts on anything or entities like student names, courses and marks. The raw data that has not yet been provided can be processed to become more useful information.

Information is an organised, meaningful and useful interpretation of data such as a company's performances or a student's academic performance. Information systems change data into information, which is useful and capable of giving a certain meaning to its users.

Process: Process or procedure explains the activities carried out by users, managers and staff. Process is important for supporting a certain business model available as written documents or as reference materials on-line.

Hotel management:
Hotel Management refers to the process, agency or level of management which handles the various business duties and day-to-day concerns of a given hotel establishment. Hotel management is responsible for employing, managing and paying the various staff. Hotel Management also involves taking care of paying bills and taxes associated with the hotel and the property where it is located.

The size and magnitude of a hotel management structure varies significantly depending on the size and function of the hotel. A small hotel normally consists of a small core management team consisting of the General Manager and a few key department managers who directly handle day-to-day operations. On the contrary, a large full service hotel often operates more like a large coporation with an executive board headed by the General Manager and consisting of key directors serving as heads of individual hotel departments. Each department normally consists of subordinate line-level managers and supervisors who handle day-to-day operations.

Activities carried out by the Hotel Management vary depending on the size and type of hotel, but may include:
- Planning and organising accommodation, catering and other hotel services
- Promoting and marketing the business
- Managing budgets and financial plans as well as controlling expenditure
- Maintaining statistical and financial records
- Setting and achieving sales and profit targets
- Analysing sales figures and devising marketing and revenue management strategies
- Recruiting, training and monitoring staff
- Planning work schedules for individuals and teams
- Meeting and greeting customers
- Dealing with customer complaints and comments
- Addressing problems and troubleshooting
- Ensuring events and conferences run smoothly
- Supervising maintenance, supplies, renovations and furnishings
- Dealing with contractors and suppliers
- Ensuring security is effective
- Carrying out inspections of property and services
- Ensuring compliance with licensing laws, health and safety and other statutory regulations.

III. ADVANTAGES

1. Employees do not need special computer skills to run the manual system.
2. No reliance computer devices which may fail since they are machine in nature.
3. Relatively low running cost as the system requires no electricity, internet services as the computerized system would.
4. It is the easy way to search the data about the customer during check-out.
5. This project is useful for the authorithies which keep track of all the users registered in a particular state.
6. The authority can add hotel packages, room details, availability of rooms,online bookings etc.
7. Extra security is not needed for the data storage.

3.1 Disadvantages
1. Guest files can easily get lost or mix up with other guest file documents.
2. File occupy a large storage space.
3. Unnecessary duplication of data.
4. Files are prone to the theft unauthorized modification due to low data security levels and standards
5. Due to easy access to guest data by unauthorized users guest data is extremely unconfident.
6. Retrieval of guest records is extremely difficult.
7. Data entry procedure is prone to errors.

FLOW CHART
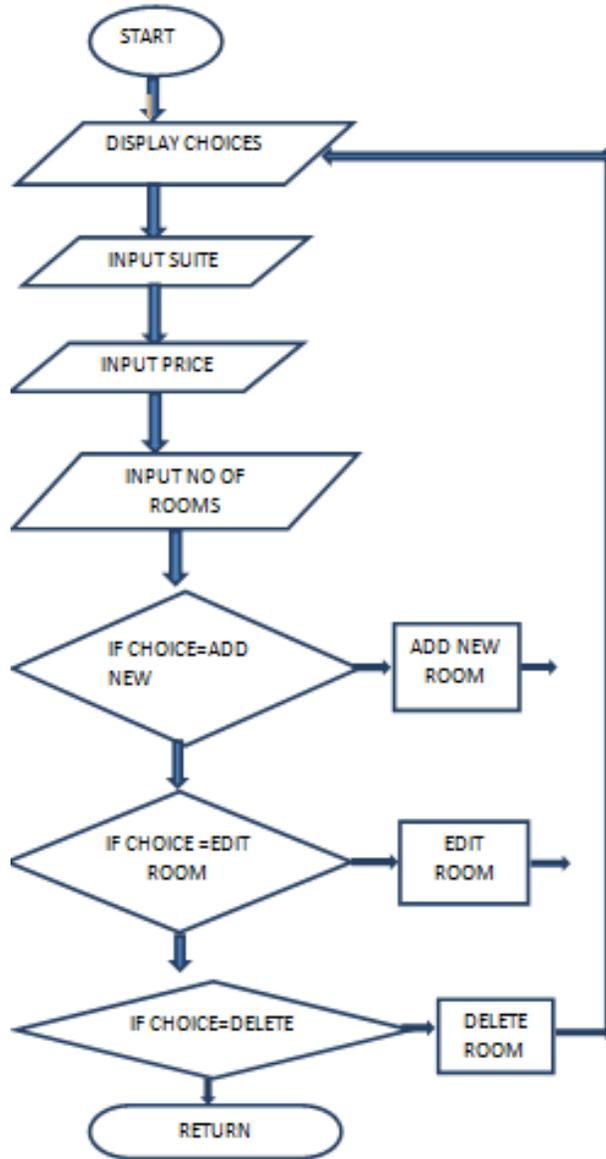
IV.   OUTPUT SCREEN
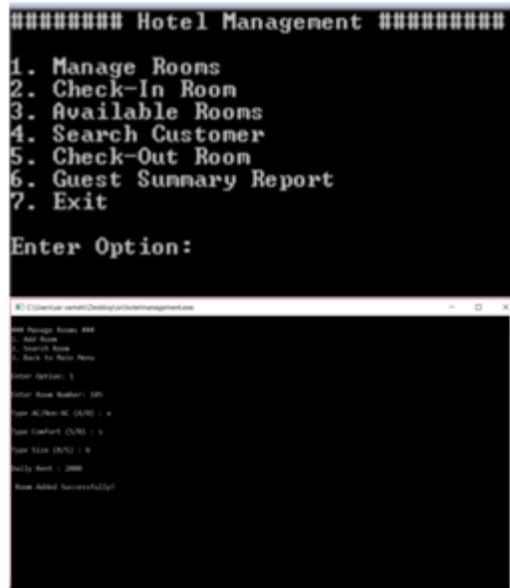
V. CONCLUSION

In conclusion we believe this project if properly utilized will save time, reduce the amount of work the administration has to do, and will replace the stationery material with electronic apparatus. The system should also serve as a major tool to improving the efficiency in Hotel management. Hence a system with expected results has been developed but there is still room for improvement.

In terms of experience gained through the duration of this project study, the students have been able to have broader knowledge about the management of Hotel organization using manual and automated procedures. The students have also been able to improve their knowledge in developing enterprise applications**.**

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