DBMS REPORT ON HOTEL MANAGEMENT SYSTEM

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INTRODUCTION

A property management system (PMS) is software that facilitates a hotel's reservation management and administrative tasks. The most important functions include the front desk operations, reservations, channel management, housekeeping, rate and occupancy management, and payment processing. Although PMS software mostly controls reservation and financial transactions, it may allow you to manage housekeeping and perform human resources management as well. In general, PMS facilitates the main processes in a hotel related to internal and external operations.

So, plenty of hotels still use Excel, a paper-and-pen format, or legacy software, none of which fulfil the needs of a 21st century hotel. Legacy PMS software may perform just one function require additional modules, or be too hard to integrate with other necessary hotel management software. Consequently, hotel owners are looking for a universal, oneand-done solution to manage all the processes.

Currently, hotel property management systems are used by big hotel chains, small hostels, and everything in between. With these systems, hotels can see the booking status of rooms and control reservations. However, their functionality doesn't end here. Via PMS, hoteliers can manage back-office processes, food and beverage services, and track room occupation rates. Let's take a closer look at the most common functions supported by PMS

PROBLEM STATEMENTS

The phase of the system analysis process deals with problems that are affecting the current manual system. The problems are those which are affecting the hotel in its daily routine work. As the growing trend in most business in InfoTech World of Computers, the need of accuracy, perfectness, speed and high memory data storage is a must. Each and every problem must be solved with the least amount of time and energy.

The problems faced by the existing system and hope to be solved by the Hotel Management

Systems are described below:

1. Difficulty in Maintenace of records;

It is very difficult to maintain data records in the system as all the records are entered in the register or the prospective record books. There are chances the record books or files in which all the Data are stored may be torn or worn out or some other damages result or files may even be misplaced.

2. Time Consuming:

It is very time-consuming and difficult to write each and every entry and exit of customers into the hotel in the register. Also, it takes a lot of time if all the entries are to be repeated say to keep in another record for safe keeping. It is also time consuming to check for data quickly. In the current system processes such as making different types of reports, preparing merit lists, and tedious calculations are examples of time-consuming processes.

3. Editing of data:

Manually written data cannot be changed or edited once written. If there is a mistake and the administrator tried to cancel it out and write it again this would make the entire register very dirty and disorganized. If data is entered incorrectly the entire system gets incorrect while editing wrongly entered data cannot easily solve errors.

4. Incidence of Fraud:

Fraudulent acts can be perpetuated by the staff arising from record insecurity. The continuous incidence of fraud in the hotel organization may lead to non-profitability of the business and the hotel involved may eventually fold up.

OBJECTIVES OF THE PROJECT

The aim of the proposed system is to provide solutions to the problems stated above and help the user to manage the hotel effectively and efficiently through:

1. Adequate Record Keeping:

To eliminate manual record keeping and install an electronic record keeping there by ensuring adequate records of transactions are kept. This ensures a centralized system where all necessary data and information can easily be accessed, tracked and monitored.

2. Reduced Incidence of Fraud:

The program is envisaged to reduce the incidence of fraud both by staff and outsiders through proper record keeping, tracking and monitoring of transaction operations in the organization.

3. Maximum Accountability:

To instill accountability in the process of management in the hotel organization by not only reducing incidence of fraud, but also eliminating wastages.

4. Provide Data Security:

The study will install security measures by providing different access levels to various staff.

5. Effective Resource Management:

The Human Resource module (HR) and Finance & Account (F&A) module will enable effective utilization of financial and human resources by comparing the accounts receivable with the account payable and complete record of personnel through the nominal role module will enhance staff deployment and productivity.

SCOPE

The study is focused on the critical operations carried out within the hotel administrative system. These major operations include:

Front-desk operations (customer management, room allocation, cashier posting).

Accommodation (Hotel room management, staff schedules, inventory).

Assets management (Fixed, Floating asset).

Staff record Management.

Restaurant & Bar operation.

Staff payroll (Pay slip).

Accounts Receivable & Payable. -:

The goals are achieved based on the ability of the computer to store large amounts of data which is very useful to store information regarding the transactions of Sacoba Lodge. The study is limited to the following:

RECEPTION MODULE: The Reception module covers all the customer allocation and booking with the sub-fields (Customer Details, Room Allocation and Cashier Posting).

ACCOMMODATION MODULE: The Accommodation covers all Room Maintenance, Housekeeping Schedules and room inventory.

FINANCE & ACCOUNT: Covers the staff payroll, assets register, accounts receivable and accounts payable.

CATERING MODULE: Covers the food ordering maintenance and bar transactions.

ADMINISTRATION & GENERAL SERVICES: Covers Personnel staff record keeping and the stores with inventory.

PROJECT SIGNIFICANCE

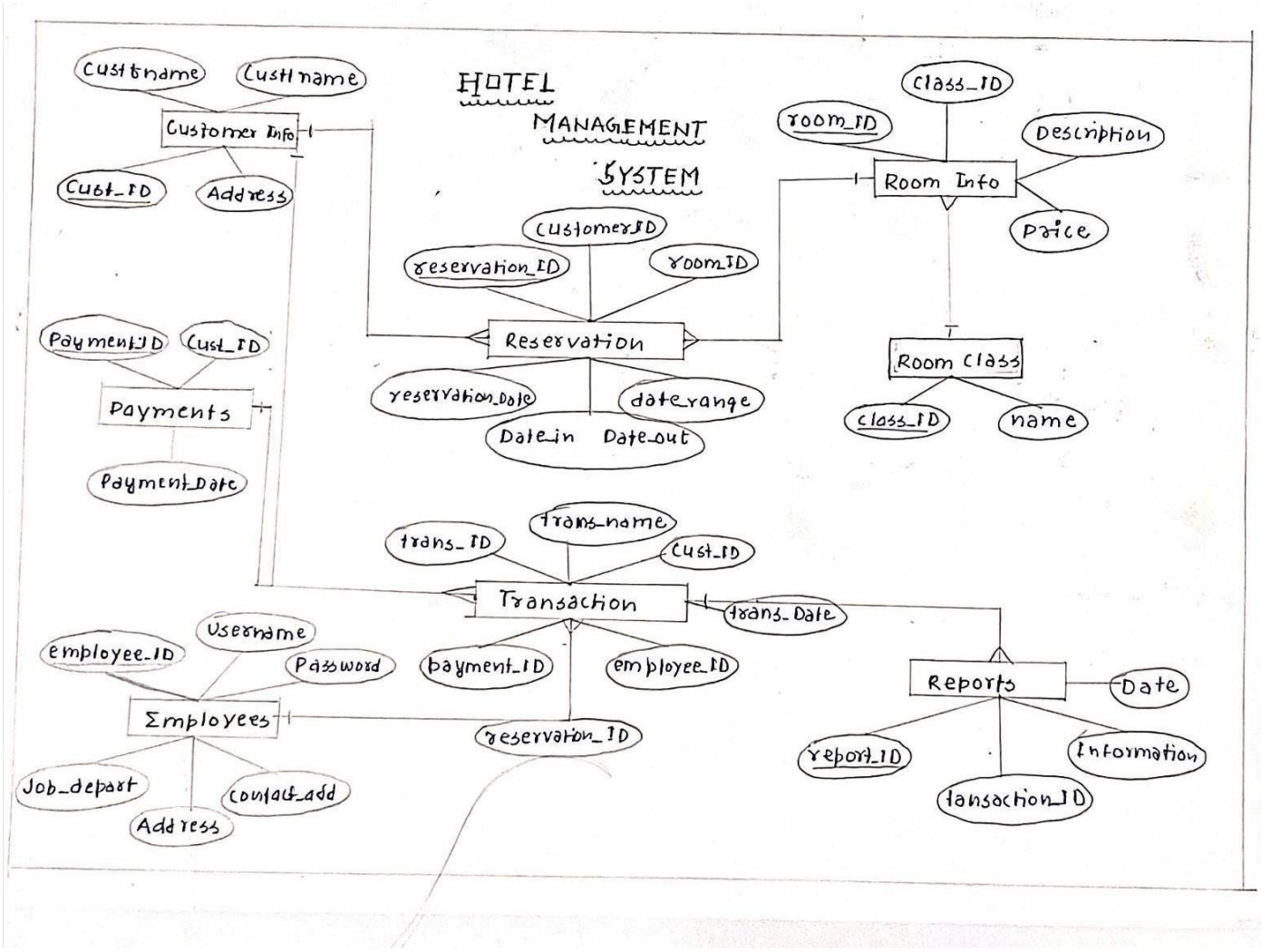
The Hotel Management system is developed to overcome most of the problems occurring in the manual system by computerizing the existing system. The features of the newly proposed computerized system are described in brief below:

After computerizing the system, the Hotel Administrator can finish their work in the least amount of time possible and with very little effort. The computerized system has many gains and efforts which the manual system cannot give in any type of situation.

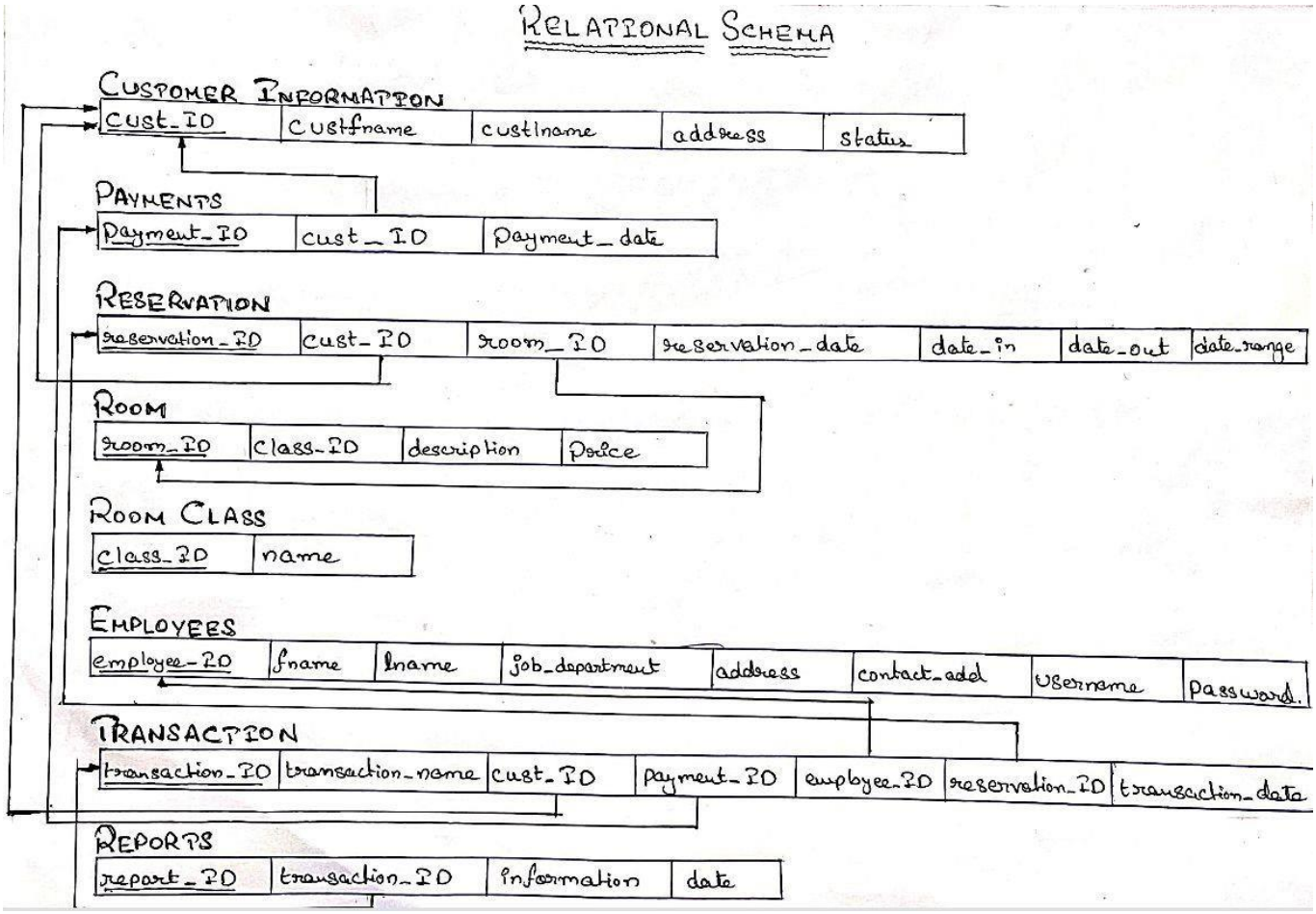
In any manual system if we take the main problem arising is to maintain the number of records and find particular records, computerized systems are most helpful in dealing with areas where databases come into existence.

A computer can hold large amounts of data in storage devices and it can operate at a very high speed. The user can input all types of information into the computer and can be able to perform any type of task which when done manually is tedious and time consuming.

ER DIAGRAM


HOTEL
MANAGEMENT
SYSTEM
Custfname
Custlname
Customer Info
Cust_ID
Address
PaymentID
Cust_ID
Payments
Payment_Date
customerID
reservation_ID
roomID
Reservation
reservation_Date
date_range
Date_in
Date_out
class_ID
room_ID
Description
Room Info
Price
Room Class
class_ID
name
trans_name
trans_ID
Cust_ID
Transaction
trans_Date
Username
employee_ID
Password
Employees
Job_depart
contact_add
Address
payment_ID
employee_ID
reservation_ID
Reports
Date
report_ID
Information
Transaction_ID

RELATIONAL SCHEMA



OVERVIEW OF THE SQL CODE

--- creating a database and using it ---

```
create database hotel_booking_project; use

hotel_booking_project;
```

--- creating tables ---

1. The Customer Information table

```
create table Customer_Information (cust_ID char(77) primary key ,custfname char(57),
custlname char(53),adress char(67), status char(47) );
```

2. The Employees table

```
create table Employees ( employee_ID char(27) primary key, fname char(47), lname
char(47),job_department char(78), address char(73), contact_add char(93),username char(89),
password char(38) );
```

3. The Room Class table

```
create table Room_Class( class_ID char(44) primary key, name char(31) );
```

4. The Room-information table

```
create table Room_Information(room_ID char(27) primary key, description char(150), price
float, class_ID char(27),foreign key(class_ID) references Room_Class(class_ID));
```

5. The Reservation table

```
create table reservation(reservation_ID char(20) primary key, customer_ID char(27),room_ID
char(27),reservation_date char(40), date_in char(40), date_out char(40), date_range char(40),
foreign key(customer_ID) references Customer_Information(cust_ID),foreign key(room_ID)
references Room_Information(room_ID));
```

6. The Payments table

```
create table payments(payment_ID char(27) primary key, customer_ID char(27), payment_date char(40), foreign key(customer_ID) references Customer_Information(cust_ID));
```

7. The transaction table

```
create table transaction(transaction_ID char(27) primary key, transaction_name char(40), transaction_date char(40),customer_ID char(27),payment_ID char(27),employee_ID char(27),reservation_ID char(27),foreign key(customer_ID) references Customer_Information(cust_ID),foreign key(payment_ID) references payments(payment_ID), foreign key(employee_ID) references Employees(employee_ID),foreign key(reservation_ID) references reservation(reservation_ID) );
```

8. The Reports table

```
create table reports(report_ID char(27) primary key, transaction_ID char(27), information char(250), date char(40),foreign key(transaction_ID) references transaction(transaction_ID));
```

SRUCTURE OF TABLES IN DBMS

```
mysql> describe Customer_Information ;
+-----------+----------+------+-----+---------+-------+
| Field     | Type     | Null | Key | Default | Extra |
+-----------+----------+------+-----+---------+-------+
| cust_ID   | char(77) | NO   | PRI | NULL    |       |
| custfname | char(57) | YES  |     | NULL    |       |
| custlname | char(53) | YES  |     | NULL    |       |
| adress    | char(67) | YES  |     | NULL    |       |
| status    | char(47) | YES  |     | NULL    |       |
+-----------+----------+------+-----+---------+-------+
5 rows in set (0.32 sec)

mysql> describe Employees;
+----------------+----------+------+-----+---------+-------+
| Field          | Type     | Null | Key | Default | Extra |
+----------------+----------+------+-----+---------+-------+
| employee_ID    | char(27) | NO   | PRI | NULL    |       |
| fname          | char(47) | YES  |     | NULL    |       |
| lname          | char(47) | YES  |     | NULL    |       |
| job_department | char(78) | YES  |     | NULL    |       |
| address        | char(73) | YES  |     | NULL    |       |
| contact_add    | char(93) | YES  |     | NULL    |       |
| username       | char(89) | YES  |     | NULL    |       |
| password       | char(38) | YES  |     | NULL    |       |
+----------------+----------+------+-----+---------+-------+
8 rows in set (0.00 sec)

mysql> describe Room_Class;
+----------+----------+------+-----+---------+-------+
| Field    | Type     | Null | Key | Default | Extra |
+----------+----------+------+-----+---------+-------+
| class_ID | char(44) | NO   | PRI | NULL    |       |
| name     | char(31) | YES  |     | NULL    |       |
+----------+----------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql> describe Room_Information;
+-------------+-----------+------+-----+---------+-------+
| Field       | Type      | Null | Key | Default | Extra |
+-------------+-----------+------+-----+---------+-------+
| room_ID     | char(27)  | NO   | PRI | NULL    |       |
| description | char(150) | YES  |     | NULL    |       |
| price       | float     | YES  |     | NULL    |       |
| class_ID    | char(27)  | YES  | MUL | NULL    |       |
+-------------+-----------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

```
mysql> describe Customer_Information ;
+-----------+----------+------+-----+---------+-------+
| Field     | Type     | Null | Key | Default | Extra |
+-----------+----------+------+-----+---------+-------+
| cust_ID   | char(77) | NO   | PRI | NULL    |       |
| custfname | char(57) | YES  |     | NULL    |       |
| custlname | char(53) | YES  |     | NULL    |       |
| adress    | char(67) | YES  |     | NULL    |       |
| status    | char(47) | YES  |     | NULL    |       |
+-----------+----------+------+-----+---------+-------+
5 rows in set (0.32 sec)

mysql> describe Employees;
+----------------+----------+------+-----+---------+-------+
| Field          | Type     | Null | Key | Default | Extra |
+----------------+----------+------+-----+---------+-------+
| employee_ID    | char(27) | NO   | PRI | NULL    |       |
| fname          | char(47) | YES  |     | NULL    |       |
| lname          | char(47) | YES  |     | NULL    |       |
| job_department | char(78) | YES  |     | NULL    |       |
| address        | char(73) | YES  |     | NULL    |       |
| contact_add    | char(93) | YES  |     | NULL    |       |
| username       | char(89) | YES  |     | NULL    |       |
| password       | char(38) | YES  |     | NULL    |       |
+----------------+----------+------+-----+---------+-------+
8 rows in set (0.00 sec)

mysql> describe Room_Class;
+----------+----------+------+-----+---------+-------+
| Field    | Type     | Null | Key | Default | Extra |
+----------+----------+------+-----+---------+-------+
| class_ID | char(44) | NO   | PRI | NULL    |       |
| name     | char(31) | YES  |     | NULL    |       |
+----------+----------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql> describe Room_Information;
+-------------+-----------+------+-----+---------+-------+
| Field       | Type      | Null | Key | Default | Extra |
+-------------+-----------+------+-----+---------+-------+
| room_ID     | char(27)  | NO   | PRI | NULL    |       |
| description | char(150) | YES  |     | NULL    |       |
| price       | float     | YES  |     | NULL    |       |
| class_ID    | char(27)  | YES  | MUL | NULL    |       |
+-------------+-----------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

INSERTING VALUES INTO THE TABLES

```
---- Inserting values into tables ----

1. insert into Customer_Information values("1", "John", "Jose", "Mumbai", "Confirmed");
2. insert into Customer_Information values("2", "Jacob", "Tobey", "Delhi", "Confirmed");
3. insert into Customer_Information values("3", "Jessica", "perry", "Bangalore", "Confirmed");

1. insert into payments values("1234", "1", "01/02/22");
2. insert into payments values("1216", "2", "08/03/22");
3. insert into payments values("2314", "3", "11/04/22");

1. insert into Employees values("11", "Herr", "weigel" "room-service","kolkata","9143281862","herr_10","234");
2. insert into Employees values("22","Stephen","tuna","reception","delhi","925832178","stephen_t","328");
3. insert into Employees values("33", "Michael", "Jackson" ,"cleaning","mumbai","6802426798","mike_10","113");


1. insert into Room_Class values("211", "Delux");
2. insert into Room_Class values("212", "Superior");
3. insert into Room_Class values("213", "Suite");
```

```
mysql> insert into Customer_Information values("1", "John", "Jose", "Mumbai", "Confirmed");
Query OK, 1 row affected (0.23 sec)

mysql> insert into Customer_Information values("2", "Jacob", "Tobey", "Delhi", "Confirmed");
Query OK, 1 row affected (0.19 sec)

mysql> insert into Customer_Information values("3", "Jessica", "perry", "Bangalore", "Confirmed");
Query OK, 1 row affected (0.12 sec)

mysql> insert into payments values("1234", "1", "01/02/22");
Query OK, 1 row affected (0.14 sec)

mysql> insert into payments values("1216", "2", "08/03/22");
Query OK, 1 row affected (0.19 sec)

mysql> insert into payments values("2314", "3", "11/04/22");
Query OK, 1 row affected (0.10 sec)

mysql> insert into Employees values("22","Stephen","tuna","reception","delhi","925832178","stephen_t","328");
Query OK, 1 row affected (0.14 sec)

mysql> insert into Employees values("33", "Michael", "Jackson" ,"cleaning","mumbai","6802426798","mike_10","113");
Query OK, 1 row affected (0.19 sec)

mysql> insert into Room_Class values("211", "Delux");
Query OK, 1 row affected (0.17 sec)

mysql> insert into Room_Class values("212", "Superior");
Query OK, 1 row affected (0.20 sec)

mysql> insert into Room_Class values("213", "Suite");
Query OK, 1 row affected (0.10 sec)
```

CONCLUSION

The conclusion of this project is A Hotel management system is a computerized management system. This system keeps the records of hardware assets besides software of this organization. The proposed system will keep a track of Workers, Residents, Accounts and generation of report regarding the present status. This project has GUI based software that will help in storing, updating and retrieving the information through various user-friendly menu-driven modules The project "Hotel Management System" is aimed to develop to maintain the day-to-day state of admission/Vacation of Residents, List of Workers, payment details etc. Main objective of this project is to provide solution for hotel to manage most there work using computerized process. This software application will help admin to handle customers information, room allocation details, payment details, billing information. etc. Detailed explanation about modules and design are provided in project documentation. The existing system is a manually maintained system. All the Hotel records are to be maintained for the details of each customers, Fee details, Room Allocation, Attendance etc. All these details are entered.