INSTITUTE FOR ADVANCED COMPUTING AND SOFTWARE DEVELOPMENT AKURDI, PUNE

Documentation On

"SOCIETY MANAGEMENT SYSTEM" PG-DAC FEB-2020

Submitted By:

Group No: 42

1119_Ankita dhavale

1120_Apurva Chimote

Mr.Prashant Karhale
Centre Coordinator

Mr.Kashinath Patil
Project Guide

Table of Contents

List of Figures

1. Introduction

Technology has made a considerable impact on the hospitality industry in recent years and will continue to do so with the increasing use of computer, controlled equipment and the growth of information technology in general. Really in the last two decades, technology has become far more advanced and far more widely used throughout all types of industry. The tourism and hospitality industry are no exception. Indeed, many tourism and leisure establishments rely on technological systems for the vast majority of their operations.

It is clear that technology used in hospitality establishments it is also used to make customers' lives more convenient. Peacock notes "automated hospitality enterprises will become increasing feature of the industry, particularly at the budget end of the market, but the main use of information technology will be in enhancing customer service, rather than replacing it". For example, many hotels use technological booking systems which make it easy for clients to book online and to have all the information they need about the rooms available to them. They also use technology within the hotel to benefit the customer during their stay. For example, many have advanced communications systems installed in the rooms which means that those on business trips can continues with their work while they are guests at the hotel. Once again, in 5star hotels, it is all the more important to provide these facilities; customers pay a lot of money and so expect to have a certain number of facilities and quality additions provided for them.

Document Purpose

The advancement in Information Technology and internet penetration has greatly enhanced various business processes and communication between hotel owners and their customers who are looking for hotel rooms. This Hotel Management System is developed to provide the following services:

Enhance Business Processes:

To be able to use internet technology to project to the global world instead of limiting their services to their local domain alone.

Online Hotel Management:

A tool through which admin can register a hotel room and provide many functionalities to customer. The admin also receives some set of functionalities which help in managing the system.

Problem Statement

The phase of 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, need of accuracy, perfectness, speed and high memory data storage is a must. Each and every problem must be solved with least amount of time and energy.

The problems faced by the existing system and hope to be solved by the Hotel Management System are described below:

- Difficulty in maintenance of records
- Time consuming
- Editing of data becomes a tedious job
- No security of data
- Mistakes occurring in calculation of
- Lack of efficiency
- Data redundancy
- Data inconsistency Incidence of Fraud

Product Scope

This project traverses a lot of areas ranging from business concept to computing field, and required to perform several researches to be able to achieve the project objectives. The area covers include:

- Hotel industry: This includes study on how the daily Hotels work actually is being done, process involved and opportunity that exist for improvement.
- J2EE Technology used for the development of the application.
- General customers as well as the hotel's staff will be able to use the system effectively.
- Web-platform means that the system will be available for access 24/7 except when there is a temporary server issue which is expected to be minimal.

Aims & Objectives

Specific goals are: -

- To produce a web-based system that allow the admin to add hotels and rooms and provide functionalities to its role.
- To ease customers by providing different functionalities to it.

Overall Description

Product Perspective:

2.1.1 Existing system function:

Hotel Management System is a web-based hotel management software. The software features include booking management, booking calendar, check ins & check outs management, payment and accounting document reports. The hotel management system provides complete information about the hotel and staff of the hotel. The features of the hotel management system are expected to provide the user(s) with easily accessible information for both the Administration and registered staff, reduce administrative costs, provide information about fee structure, date of payment, new rules and keep track of all the rooms in the hotel and customers. The information should be accurate, consistent, timely, reliable and complete.

2.1.2 Proposed System:

Product functionality:

Society Management System provides the features for admin and customer. It includes several functionalities describes as below:

Admin Management:

It provides facility to add, update, delete and view the hotels and rooms details according to which the customer is going to book hotel room with his suitability. We can view details of booking payment and also update it if that particular room is booked by any customer.

Hotels & Rooms List:

The admin can add hotels and rooms which can be viewed by the customers in the gallery when they login in, into the system.

Benefits of Hotel Management System

- This online society management solution is fully functional and flexible.
- It is very easy to use.
- This online hotel management system helps in back hotel administration by streamlining and standardizing the procedures.
- It saves a lot of time, and manage budgets.

- Eco-friendly: The monitoring of the hotel management and the overall business becomes easy and includes the least of paper work.
- The application acts as an office that is open 24/7.
- It increases the efficiency of the management at offering quality services to the customers. It provides custom features development and support with the application.

Users and Characteristics:

Admin:

- Admin can login to the system.
- View the list of all customers, employee, bookings, payments.
- Add new hotel, room & employee.
- Delete hotel, room, customer, employee, & booking.
- Update hotel, room, employee & booking details.
- View hotels & rooms gallery.
- Add employees in the system.
- View booked rooms in the system.

Customers:

- Customer can register to the system.
- Can login to the system.
- View hotel & room details.
- Can book a room.
- Make payment.

Operating Environment:

Server Side:

Processor: Intel® Xeon® processor 3500 series

HDD: Minimum 500GB Disk Space

RAM: Minimum 4GB

OS: Windows 10

Database: MySql

Client Side (minimum requirement):

Processor: Intel Dual Core

HDD: Minimum 80GB Disk Space

RAM: Minimum 1GB

OS: Windows 8.1

Design and Implementation Constraints:

- The application will use Angular, java Springboot, javascript, bootstrap and css as main web technologies.
- HTTP is used for communication; the client can access it via HTTP protocol.
- Several types of validations make this web application a secured one and SQL Injections can also be prevented.
- Since Hotel Management system is a web-based application, internet connection must be established.
- The Hotel Management System will be used on PCs and will function via internet or intranet in any web browser.

Specific Requirement

External Interface Requirements:

3.1 Functional Requirements:

This section provides requirement overview of the system.

Various Functional modules that can be implemented by the system will be-

3.1.1 Registration

If customer wants to book the rooms then they must be registered, unregistered user can't book the rooms.

3.1.2 Login

Customer logins to the system by entering valid user id and password for the booking.

3.1.3 Payment

In this system we are dealing the mode of payment by Cash.

3.1.4 Logout

After booking or canceling for the Hotel room, customer has to logout.

3.1.5 Report Generation

After booking the room, the system will generate bill and update the data into the database.

3.2 Non- Functional Requirements:

Following Non-Functional Requirements will be there in the insurance to the internet:

i) Secure access to consumer's confidential data. ii) 24 X 7 availability. iii) Better component design to get better performance a peak time. iv) Flexible service based architecture will be highly desirable for future extension.

v) Non-Functional Requirements define system Properties and constraints. Various other Non-Functional Requirements are:

- **Security**
- **Reliability**
- **Maintainability**
- **Portability**
- **Extensibility**
- **Reusability**
- **Compatibility**
- **Resource Utilization** Hardware Interfaces:

- No extra hardware interfaces are needed.
- The system will use the standard hardware and data communication resources.
- This includes, but not limited to, general network connection at the server/hosting site, network server and network management tools.

Application Interfaces:

OS: Windows 10

Web Browser:

The system is a web-based application; clients need a modern web browser such as Mozilla Firebox, Internet Explorer, Opera, and Chrome. The computer must have an Internet connection in order to be able to access the system.

Communications Interfaces:

- This system uses communication resources which includes but not limited to, HTTP protocol for communication with the web browser and web server and TCP/IP network protocol with HTTP protocol.
- This application will communicate with the database that holds all the information. Users can contact with server side through HTTP protocol by means of a function that is called HTTP Service. This function allows the application to use the data retrieved by server to fulfil the request fired by the user.

System Design

Admin Activity Diagram

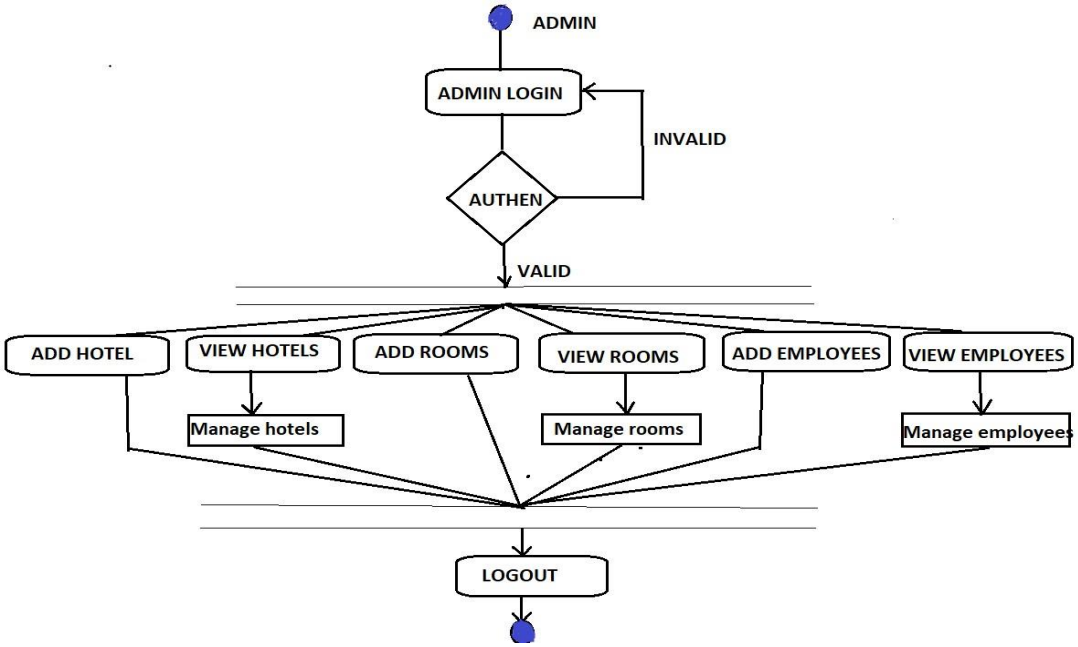

Figure 1: Admin Activity Diagram

Customer Activity Diagram

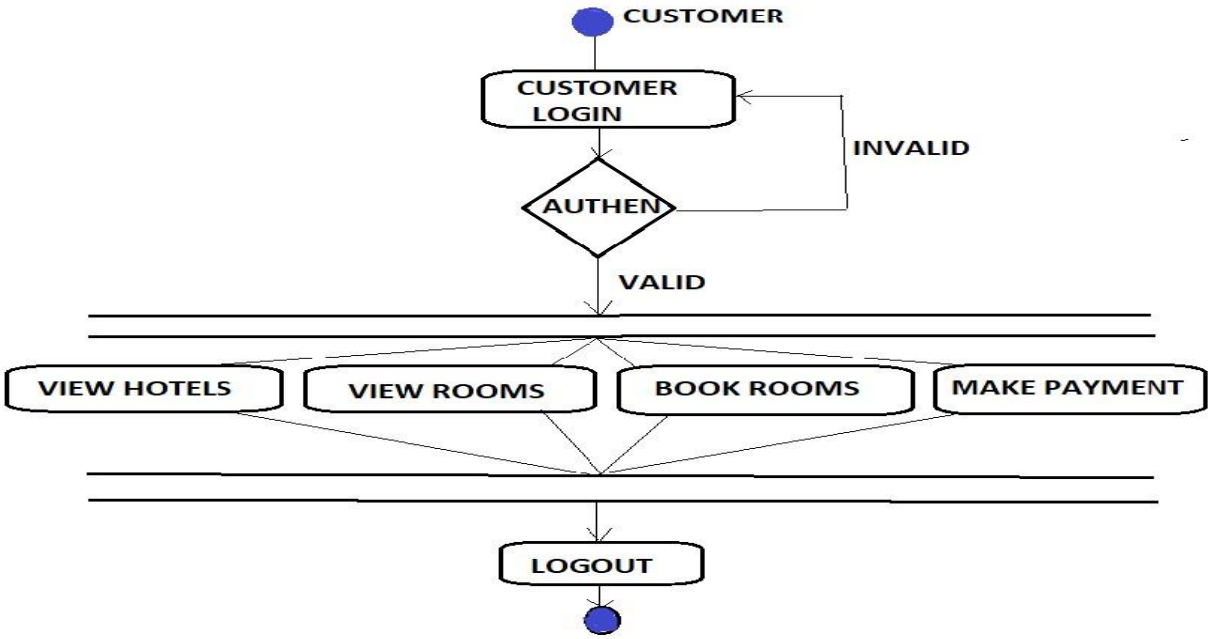

Figure 2: Customer Activity Diagram

Data Flow Diagram

Figure 3: Level 0 Data Flow Diagram

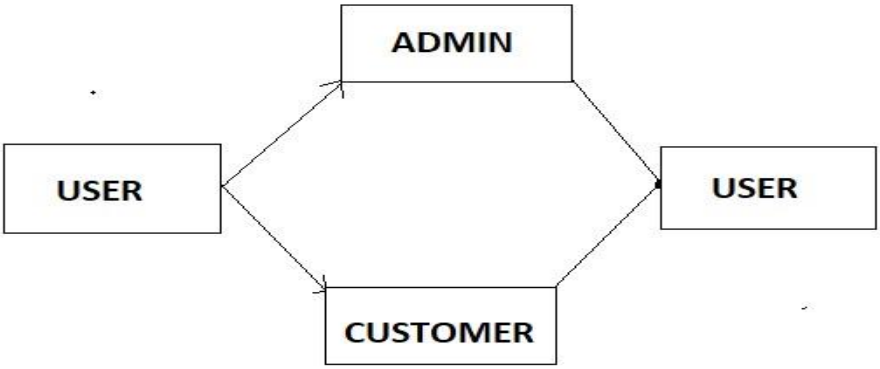

Figure 4: Level 1 Data Flow Diagram

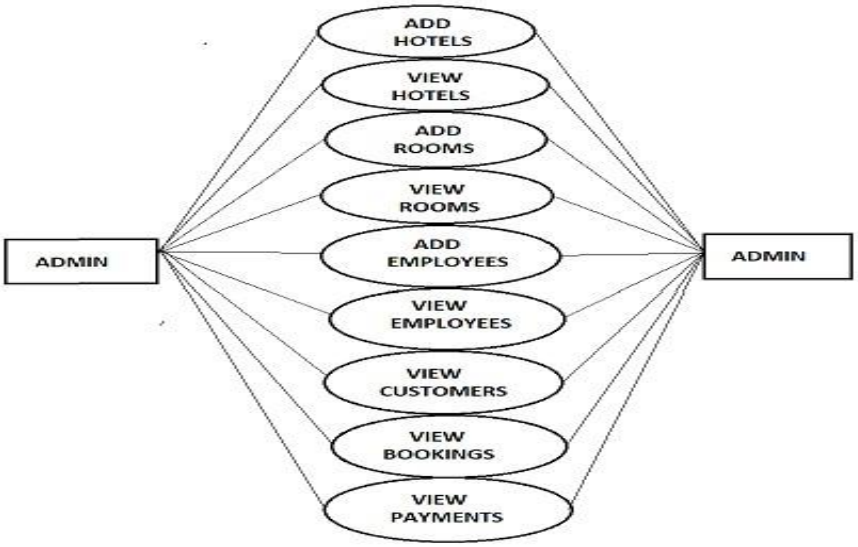

Figure 5: Level 2 Data Flow Diagram for Admin

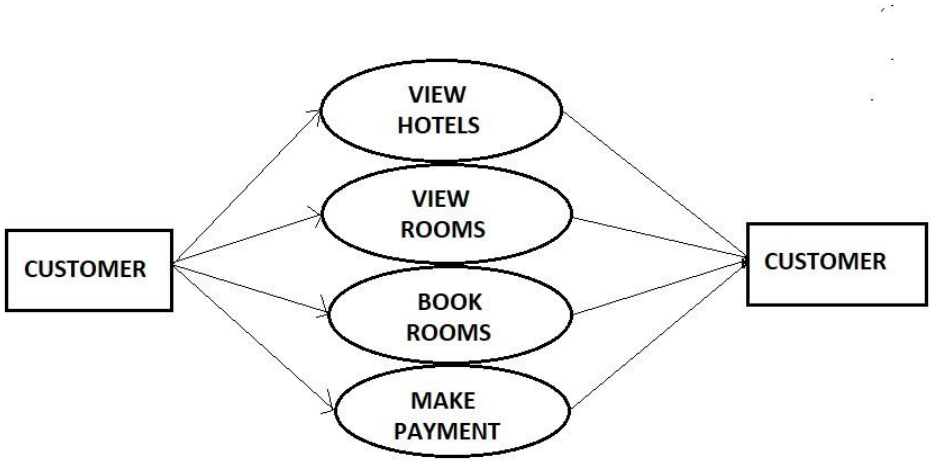

Figure 6: Level 2 Data Flow Diagram for Customer

Class Diagram:

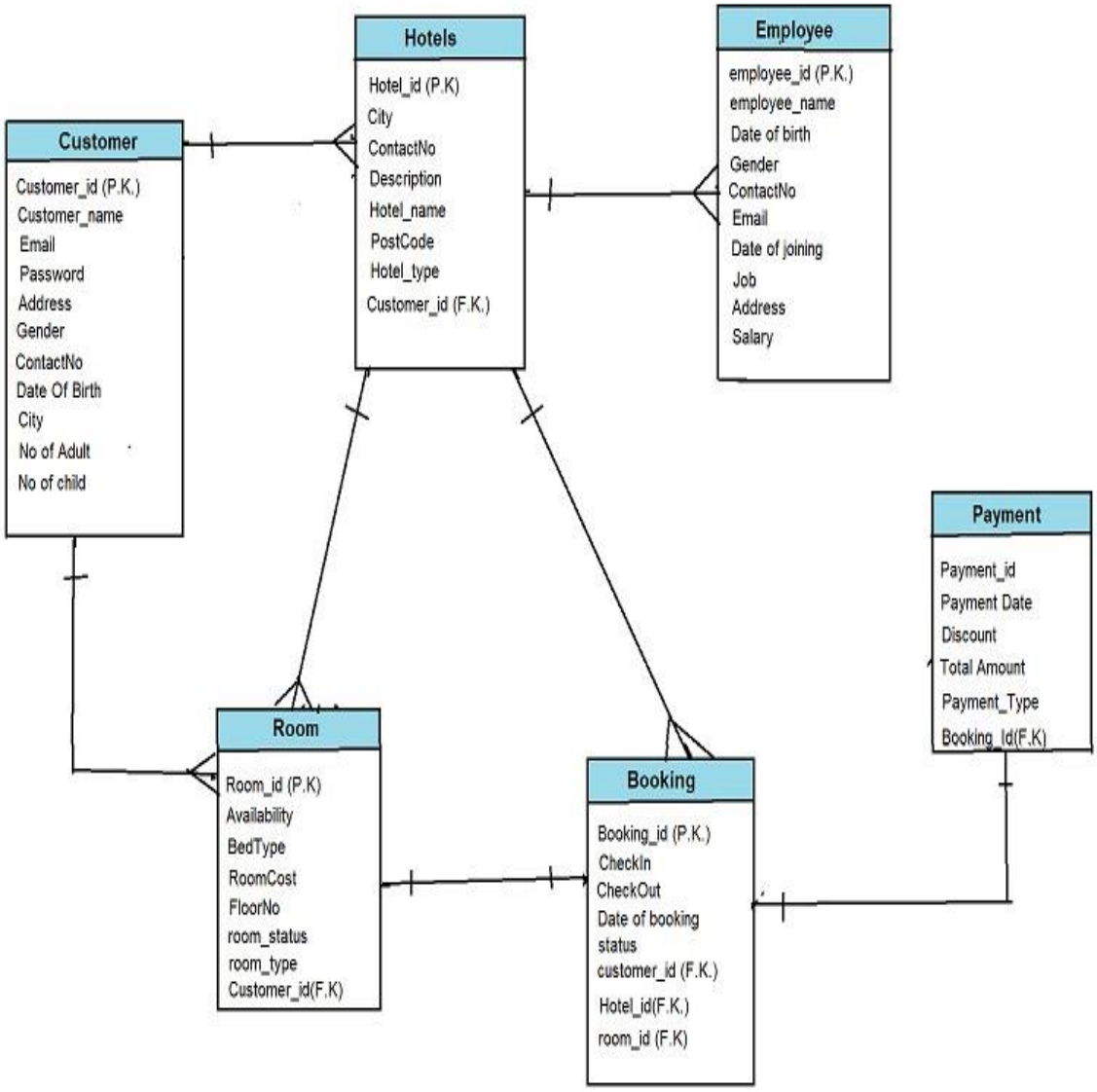

Figure 7: Class Diagram

Use Case Diagram :

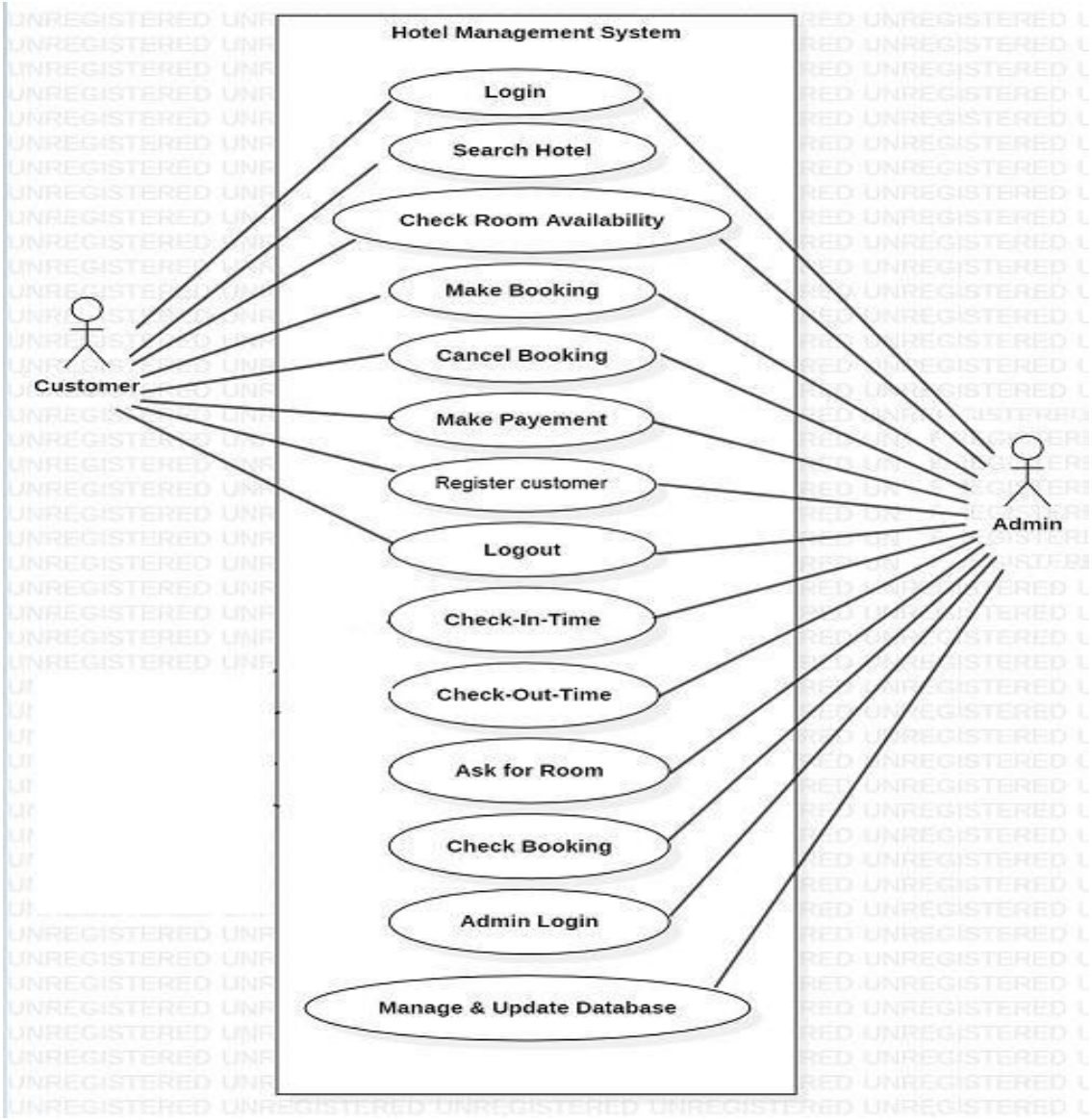

Figure 8: Use Case Diagram

ER Diagram

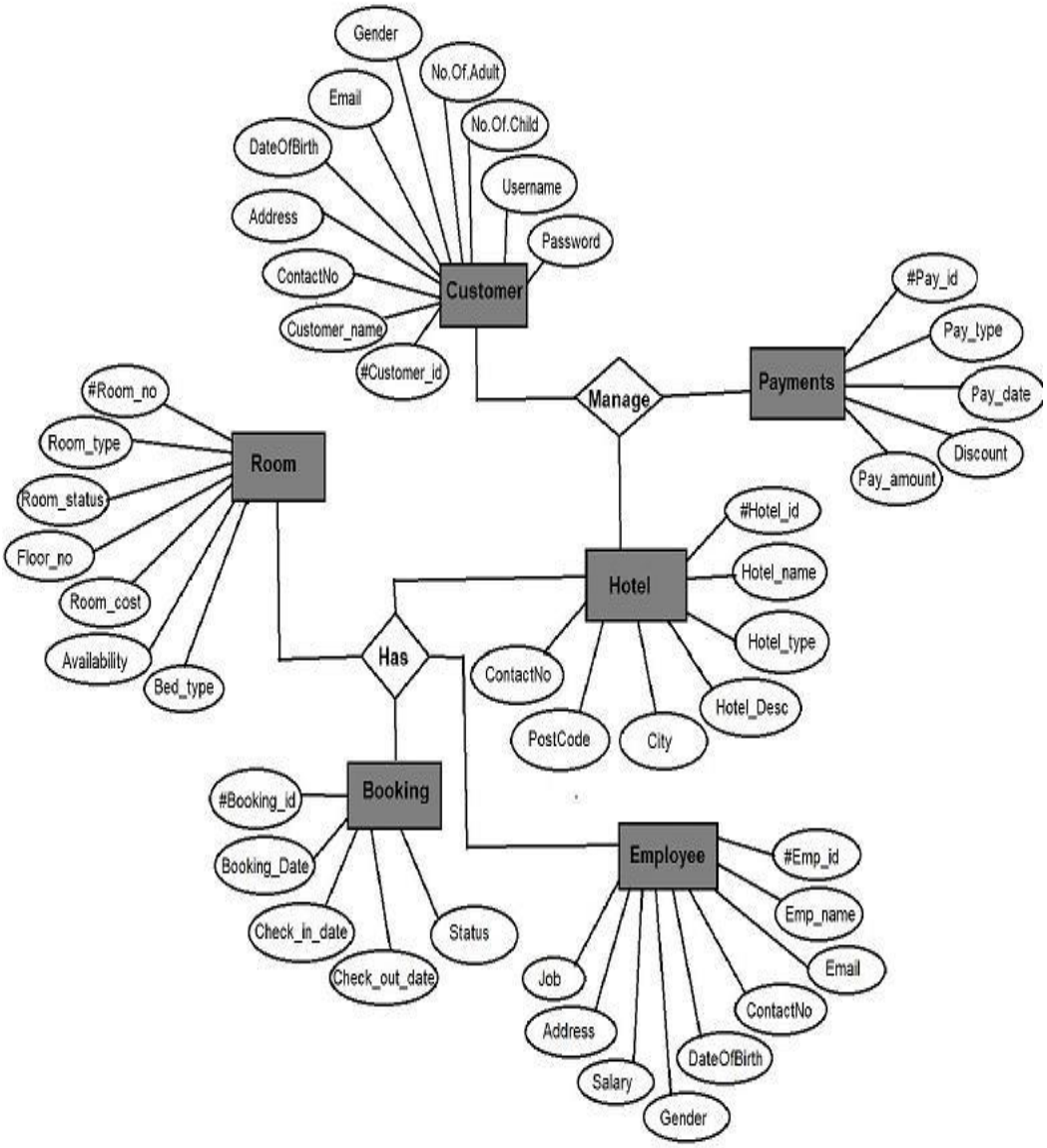

Figure 9: ER Diagram

Table Structure

Admin:

Field	Type	Null	Key	Default	Extra
login_id	int	NO	PRI	NULL	auto_increment
email	varchar(30)	YES		NULL	
password	varchar(255)	YES		NULL	

Customer:

Field	Type	Null	Key	Default	Extra
customer_id	int	NO	PRI	NULL	auto_increment
address	varchar(100)	YES		NULL	
no_of_adults	int	YES		NULL	
no_of_childs	int	YES		NULL	
city	varchar(20)	YES		NULL	
confirm_password	varchar(255)	YES		NULL	
contact_no	varchar(12)	YES		NULL	
date_of_birth	date	YES		NULL	
email	varchar(255)	YES	UNI	NULL	
gender	varchar(255)	YES		NULL	
name	varchar(30)	YES		NULL	
password	varchar(255)	YES		NULL	

Employee:

Field	Type	Null	Key	Default	Extra
employee_id	int	NO	PRI	NULL	auto_increment
address	varchar(100)	YES		NULL	
contact_no	varchar(12)	YES		NULL	
date_of_birth	date	YES		NULL	
date_of_joining	date	YES		NULL	
email	varchar(255)	YES	UNI	NULL	
gender	varchar(255)	YES		NULL	
job	varchar(255)	YES		NULL	
name	varchar(30)	YES		NULL	
salary	double	YES		NULL	

Hotels:

Field	Type	Null	Key	Default	Extra
hotel_id	int	NO	PRI	NULL	auto_increment
city	varchar(30)	YES		NULL	
contactno	varchar(12)	YES		NULL	
hotel_description	varchar(30)	YES		NULL	
image_url	varchar(255)	YES		NULL	
hotel_name	varchar(255)	YES		NULL	
post_code	int	YES		NULL	
hotel_type	varchar(20)	YES		NULL	
customer_id	int	NO	MUL	NULL	

Rooms:

Field	Type	Null	Key	Default	Extra
room_id	int	NO	PRI	NULL	auto_increment
room_availability	varchar(255)	YES		NULL	
bed_type	varchar(20)	YES		NULL	
room_cost	double	YES		NULL	
floor_no	int	YES		NULL	
room_status	varchar(255)	YES		NULL	
room_type	varchar(255)	YES		NULL	
customer_id	int	NO	MUL	NULL	

Bookings:

Field	Type	Null	Key	Default	Extra
booking_id	int	NO	PRI	NULL	auto_increment
check_in	date	YES		NULL	
check_out	date	YES		NULL	
date_of_booking	date	YES		NULL	
status	varchar(255)	YES		NULL	
customer_id	int	NO	MUL	NULL	
hotel_id	int	NO	MUL	NULL	
room_id	int	NO	MUL	NULL	

Payment:

Field	Type	Null	Key	Default	Extra
payment_id	int	NO	PRI	NULL	auto_increment
payment_date	date	YES		NULL	
payment_amount	double	YES		NULL	
discount	int	YES		NULL	
payment_type	varchar(255)	YES		NULL	
booking_id	int	NO	MUL	NULL	

Conclusion

In hotel management system, We have developed a secure , user-friendly Hotel Management System. This system can take care of each member whether its admin or customer. This System will help them to properly manage their hotel and help in growth without creating and hassle. This system is completely secure since every user is provided with user id and Password so there is no chance of any unauthorized access, online Payment, Booking and cancellation make it easier to use . So, using this system will help in reducing the labour and provide more facility for customer to like hotel and visit again and again.

Future Scope

This project can be enhanced further by adding food order ,online payment facility for the members to reduce the extra work of the admin. The software is flexible enough to be modified and implemented as per future requirements. We have tried our best to present this free and user–friendly website to Customer .At present this software does not contain credit /debit card Facility. We can make this application as online so that we can reserve the hotels and do the online payment .

7.0 References

[1] Core Java And Advanced Java With Crud Operation Lectures Conducted by Madhura Mam.

[2] Java By Budo Timothy “Understanding Object- Oriented Programming with JAVA” . Pearson,1999

[3] Java By Balgurusamy E “ Programming with JAVA, A Primer” Tata Mcgraw Hill,2006.

[4] Angular Lectures