SOFTWARE REQUIREMENTS SPECIFICATIONS

FOR

HOTEL MANAGEMENT SYSTEM

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1. Introduction:

- The Hotel Management System streamlines room booking processes and enhances customer experience. With an online platform for reservations, it facilitates efficient management of hotel operations. Customers benefit from user-friendly tools for booking rooms, while hotel staff can effectively manage reservations and customer information

- The system's scope encompasses reservation management, customer profiling, and reporting functionalities, ensuring comprehensive support for hotel operations. By providing a centralized platform for both customers and staff, the Hotel Management System optimizes the booking process, enhances service delivery, and contributes to overall operational efficiency.

1.1 Purpose:

- This Hotel Management System's SRS main objective is to provide a base for the foundation of the project. It gives us a view flow of "How the system works?" and "What are the user's expectations?" Client's requirements are analysed to build a desired system. This SRS for Hotel Management System can also be used on the basis for detail understanding on "How project was started?”

1.2 Scope :

- The world is changing so as the scope of hotel management. Today, hotel management is not only confined to hotels but had gone deep into tourism, catering, airlines, clubs, etc. making it a very promising career option.

1.3 Definition :

- The HMS is an online Hotel Administration System used for Reservation, Availability and Occupancy Management, Check In /Check Out, viewing Images etc.

- **Abbreviations:**

SRS	Software Requirement Specifications
HMS	Hotel Management System
API	Application Interface
OS	Operating System
DBMS	Database Management System

1.4 System Overview:

The HMS project is intended for Booking of Rooms through an online platform. Our HMS has three end users:-
Admin: - Admin will have access to update or modifying booking details
Customer: - Customer is able to check room's availability.

1.5 REFERENCES:

https://nodejs.org/en

https://react.dev/

https://postgresapp.com/

https://www.slideshare.net/UttamSinghChaudhary/software-requirement-specification-of-hotel-management-system

https://dipeshagrawal.wordpress.com/wp-content/uploads/2018/07/srs-hotel-management-system-ok.pdf

2. Overall Description:

2.1 Product perspective:

- The main perspective of this project is to provide a online platform for Booking of hotel's room with secure payment option and easy done.
- This is basically similar to going hotel and booking that we have. But with the use of computers for creating online platform, it will be easy for people to book hotel at any time.

2.1.1 System Interfaces:

- There must be driver installed for connecting printers and scanners.

- There must be keyboard and mouse connected to it for input.
- There must be ups battery backup for emergency conditions.

2.1.2 Hardware Interface:

Various interfaces for the product could be
- Touch screen/Monitor
- Keypad and mouse
- Continuous battery backup
- Printer which can produce the hard copy of Bookings.

2.1.3 Software Interface:

- Any windows operating system.
- Any database storing program software installed.

- The final application must be packaged in a set up program, so that the products can be easily installed on machines. This application is linked with the hotels.

2.1.4 Communication Interfaces:

- There must be a network connected for connecting all the systems of the hotels. This should provide updating data in every computer after each and every transaction from each computer.

2.2 User Characteristics:

There are 2 user Levels in our HMS: -
- Admin
- Customer

ADMIN:

- Admin will have access to whole system. Admin is responsible for managing hotel resources and staff.
- Admin can view the financial report, booking information and room information to analyze them.

Customer:

- Customer is the vital part of this HMS system. Customer is able to check room availabilities, price ranges and even is able to see their status. Customer also has access to inquiry portals to forward inquiry.

2.3 Product Function:

- Allows typing for customer information.
- Has fixed rate for rooms.
- When a customer checks in the room number will be updated in the database.
- Ability to modify the reservation.
- Customers will be provided rooms on the basis of room availability.
- Record for vacant rooms.
- Creation of users and assigning passwords.
- Allow addition, deletion, and modification of information on room and rates, menu item and prices, user profiles by receptionist.

2.4 Design and Implementation Constraints-

- System is wirelessly networked with an encryption.
- Database is password protected.
- Should use less RAM and processing power.
- Each Customer should have individual booking ID's.
- Only Admin can access the whole system.

2.5 Assumptions and Dependencies -

- Each user must have a valid user id and password
- Users must log in to the system to access their status.
- Only the Manager/Receptionist can update records.
- GUI is only in English.
- Login and password is used for identification of user and there iss no facility for guest.

3. Specific Requirement

3.1 External Interface Requirements:

- The user interface is compatible to every type of browser such as Chrome, UC Browser, and Internet Explorer.

3.2 Functional Requirements:

- The Customers are able to register their details during their online visit.
- The system will record the following details of the customer: -
  - Name
  - Phone Number
  - Email

- Then After login customers are directed to their profile page.

- The system enables the customers to check availability of rooms.
- The system should display the rate for all rooms.
- The system enables customers to either confirm or cancel their bookings.
- The system allows Admin to update, Add, Delete, booking
- information.
- •The system is having a customer enquiry portal to respond to customer.
- The system is able to generate Financial and Customer report to Admin.
- The system is able to provide full access to Admin for any changes in booking, room information and customer information.
- The system is able to allow customer to pay bills in online way via Credit or Debit Card.

3.3 Performance Requirements:

- Data in database should be updated as soon as user's register
- themselves.
- Query of customer will be solved within 5 minutes.
- Load time of UI will not take more than 6 seconds.
- Login process will be done within 3 seconds.

3.4 Software System Attribute

3.4.1 Reliability：

- This system is able to satisfy the normal HMS operations to meet the end users requirements.

3.4.2 Portability：

- The system is available on all Windows based environments.

3.4.3 Security：

- All data is protectively Marked.
- Payment process should use HTTP protocol to secure payment transactions.

3.4.4 Maintainability：

The system is Maintainable.

3.4.5 Flexibility:-

- System is flexible enough to provide enough space to add new features and to handle them efficiently.

3.4.6 Availability:-

The Hotel Booking system is available on specific time and specific date as many customers are doing advance bookings.

3.5 Logical database Requirements:

- The details of the customer like customer's name, phone number, email -id will be saved in database system.
- The details regarding customer transaction will be stored in the database transaction system.
- Check in and Check out time of the customer will be recorded in database system.

Others

3.6 Environmental Characteristics-

1. Peripherals-

- Laptop/Desktop PC - To show or represent/ check records of the customers

- Laser Printer (B/W) - For printing details of transactions made by customer.
- Wi-Fi router - Wi-Fi router is used to for internetwork operations inside of a hotel, and simply data transmission from every computer to other.\

2. Hardware -

- Standard pc
- Internet connection with good enough speed
- Pentium IN 1.7 GHz dos or better processor
- 1 GB or more RAM
- At least 256 GB Hard disk space.

3. Software -

- Front End Client: The system is a web based application clients are requiring using any modern web browser.

• Web Server: The web application will be hosted on one of the apache server, OS
(windows).
• Back End: We use back end as PostgresSql.

This SRS would be used by the following people:

Admin:

- Manager has the full access to the system which means he is able to manage any activity with regard to the

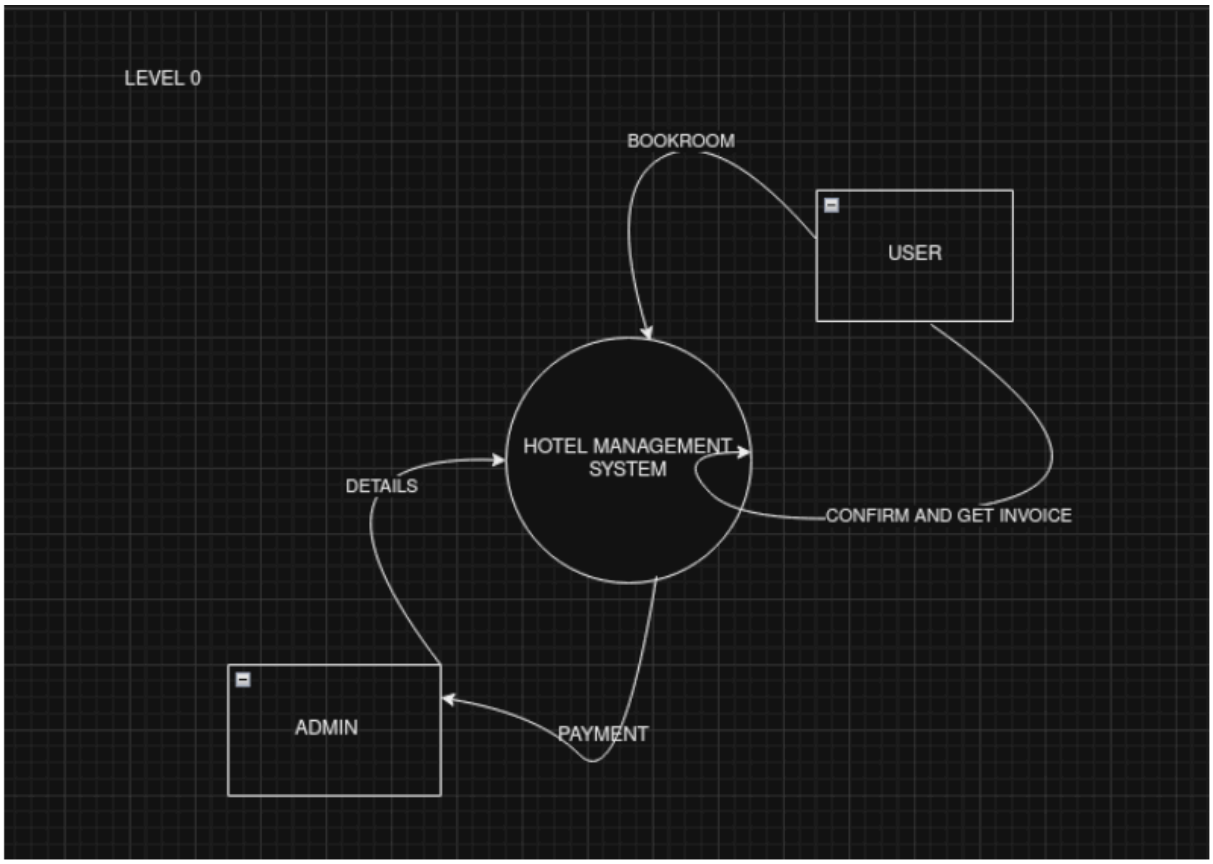
system. He is the highest privileged user who can access to the system.
- Manage employees, customers and Booking details
- Generate reports regarding transactions
- Manage systems
- Manage employees with their workings

Customer:

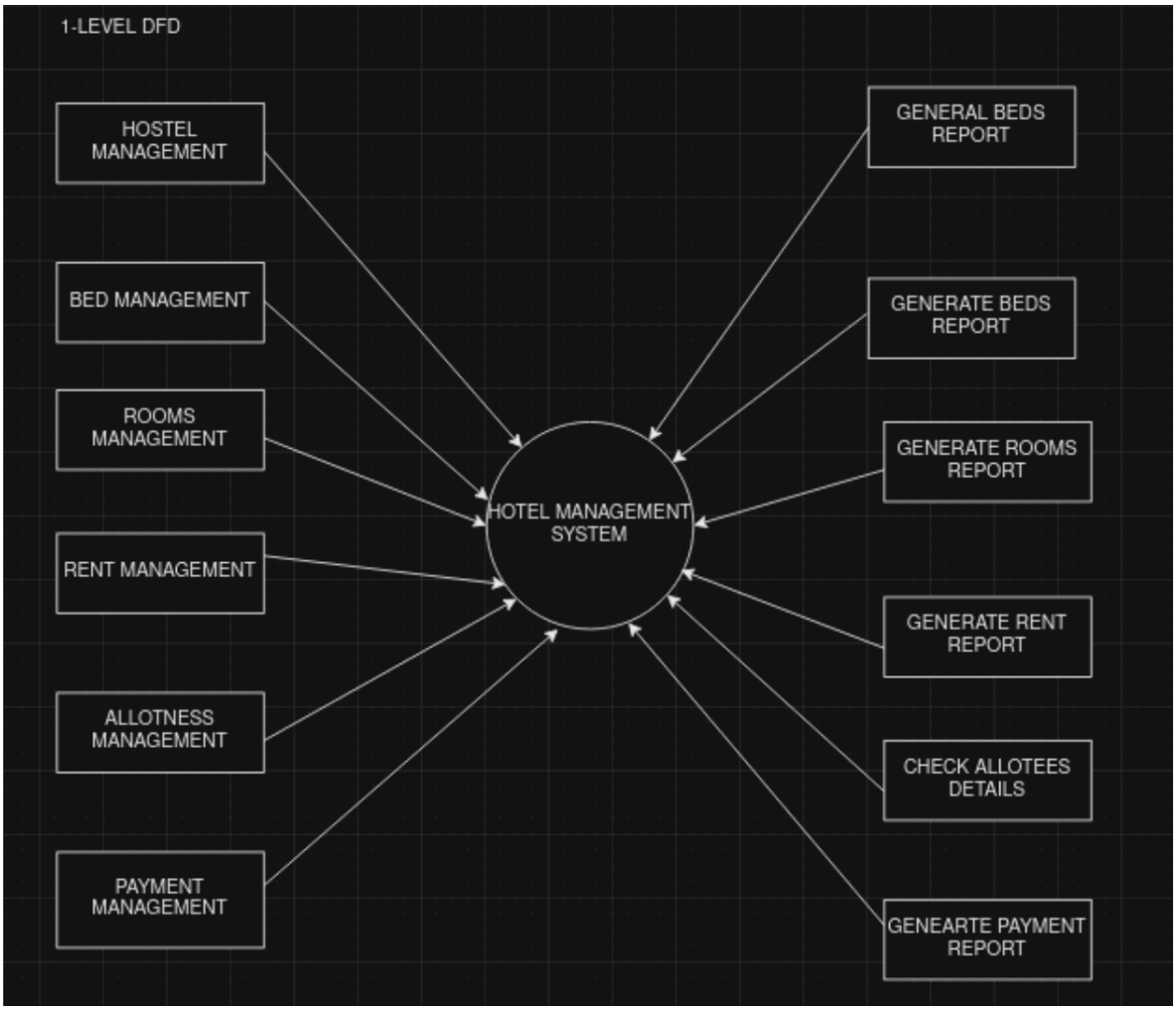
- Customer is the vital part of this HMS system.
- Customer is able to check room availabilities.
- A customer is able to see price ranges and even is able to see their status.
- Customer also has access to inquiry portals to forward inquiry.

DATA FLOW DIAGRAM(DFD)

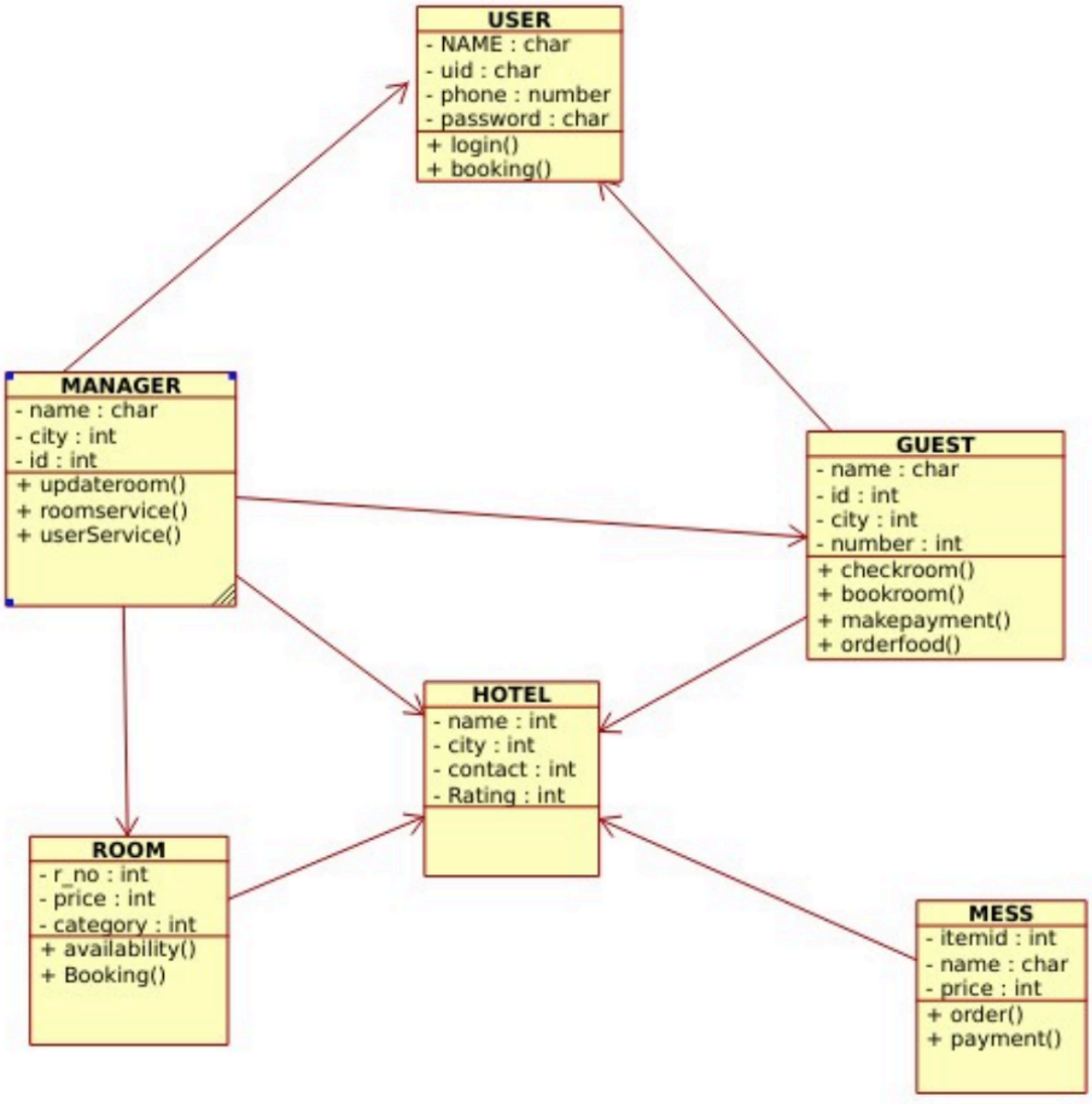
0-level



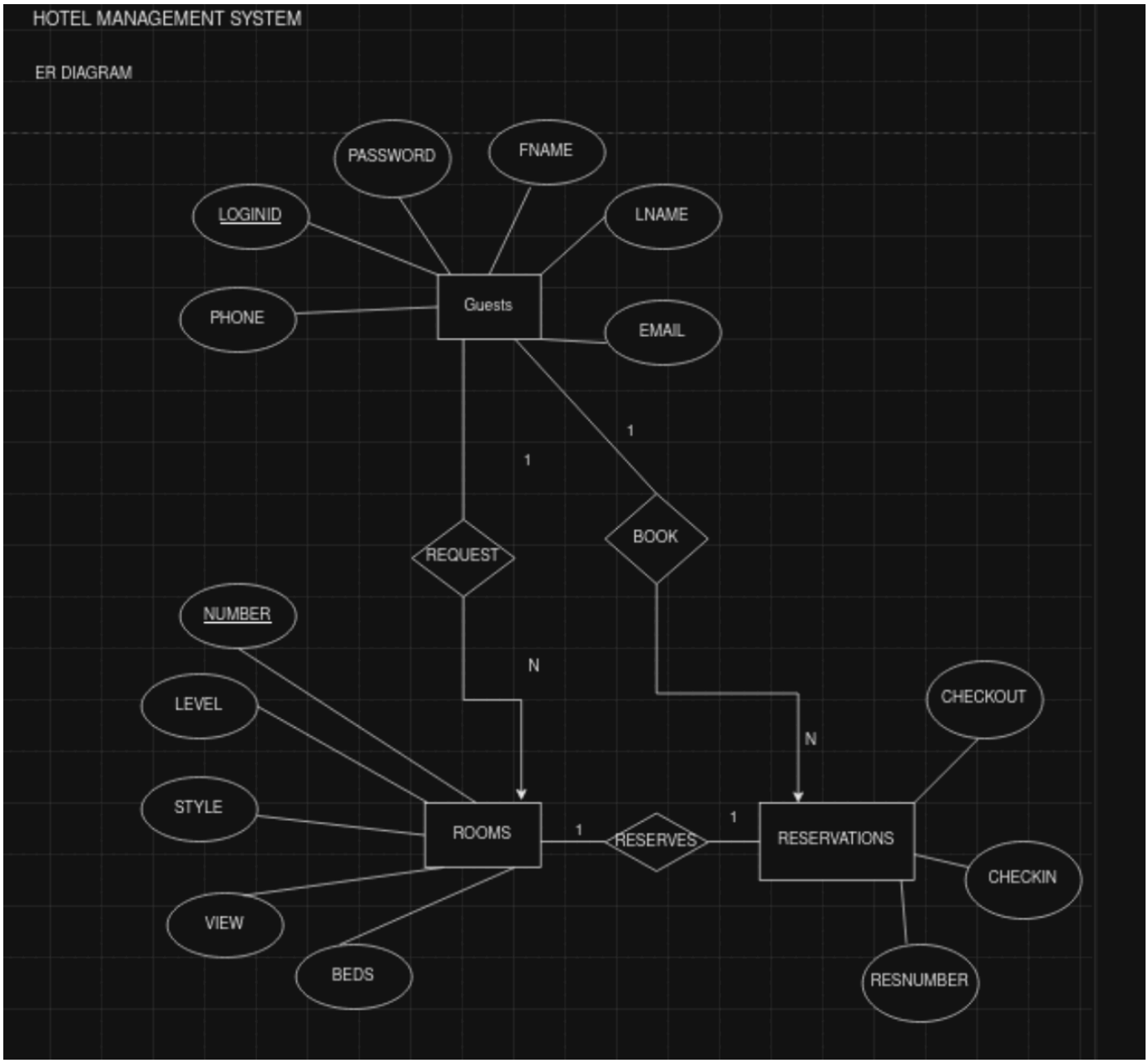
1-level


1-LEVEL DFD
HOSTEL MANAGEMENT
BED MANAGEMENT
ROOMS MANAGEMENT
RENT MANAGEMENT
ALLOTNESS MANAGEMENT
PAYMENT MANAGEMENT
HOTEL MANAGEMENT SYSTEM
GENERAL BEDS REPORT
GENERATE BEDS REPORT
GENERATE ROOMS REPORT
GENERATE RENT REPORT
CHECK ALLOTEES DETAILS
GENEARTE PAYMENT REPORT

CLASS DIAGRAM:



ER-DIAGRAM:


HOTEL MANAGEMENT SYSTEM
ER DIAGRAM
PASSWORD
FNAME
LOGINID
LNAME
Guests
PHONE
EMAIL
1
1
REQUEST
BOOK
NUMBER
N
LEVEL
CHECKOUT
N
STYLE
ROOMS
1
RESERVES
1
RESERVATIONS
CHECKIN
VIEW
BEDS
RESNUMBER

USE CASE DIAGRAM: