UML DIAGRAM

Use Case Diagram:



This Use Case Diagram represents the main functionalities of the HRBMS system. There are three actors: the Hotel Guest, the Hotel Staff and the Hotel Admin. The Hotel Guest can book a room and manage their bookings, the Hotel Staff can manage the rooms, bookings, and guests, while the Hotel Admin can manage the rooms, bookings, guests and staff.

Class Diagram:



This Class Diagram represents the main entities in the HRBMS system: Rooms, Bookings, and Customers. The Rooms class has attributes such as Room\_Id, Room\_Type, Room\_Number, Price, Description, Max\_Occupancy, and Status. The Bookings class has attributes such as Booking\_Id, Check\_In, Check\_Out, Total\_Price, and Status. The Customers class has attributes such as Customer\_Id, Name, Email, Phone, and Address. The associations between the classes are represented by arrows: Rooms has a one-to-many relationship with Bookings, Bookings has a one-to-many relationship with Customers, and Rooms and Bookings are connected by a many-to-one relationship.

Sequence Diagrams:

Hotel Guest - Bookings



This Sequence Diagram represents the steps involved in a Hotel Guest making a room reservation. The Hotel Guest sends a request for room availability, and the Bookings component responds with a list of available rooms. The Hotel Guest then requests to book a specific room, and the Bookings component confirms the booking. Finally, the Hotel Guest requests the details of their booking, and the Bookings component sends the relevant information.

This sequence diagram represents the steps involved in a Hotel Guest making a room reservation. Here are the details of each step:

* The Hotel Guest sends a request for room availability to the Bookings component.
* The Bookings component responds with a list of available rooms to the Hotel Guest.
* The Hotel Guest selects a specific room and sends a request to book the room to the Bookings component.
* The Bookings component confirms the booking and sends a confirmation to the Hotel Guest.
* The Hotel Guest requests the details of their booking from the Bookings component.
* The Bookings component sends the relevant booking details to the Hotel Guest.
* These steps illustrate the interaction between the Hotel Guest and the Bookings component of the HRBMS system.

Admin Side



* The admin logs into the system using their username and password.
* The system authenticates the admin's credentials and grants access to the admin dashboard.
* The admin selects the "Manage Users" option from the dashboard.
* The system displays a list of all registered users, including hotel guests and staff.
* The admin selects a user from the list to manage.
* The system displays the user's details, including their access level and permissions.
* The admin has the ability to modify the user's details, including their access level and permissions, as well as delete the user's account if necessary.
* If the admin selects to modify a user's details, the system prompts the admin to enter the new details.
* If the admin selects to delete a user's account, the system prompts the admin to confirm the action.
* Once the admin has made the necessary changes, the system updates the user's details in the database.
* The admin can also set up room types, rates, and availability rules for hotel guests and staff.
* The system provides the necessary tools and interfaces for the admin to set up these rules and parameters.
* Once the admin has set up the room types, rates, and availability rules, the system updates the database with the new information.
* The admin can log out of the system once they have completed their tasks.