**Topic: Developing a web-based hotel booking system**

Hotel booking system like for hotel Garni of Tomas Bata university.

A hotel booking system needs to store information pertaining to:

- Its customers

- Its hotels

- The availability and prices of the rooms at different hotels

- The reservations and transactions made by the customers

The hotel booking system must allow customers to search and book rooms online, as well as modify or cancel their reservations. Customers will provide their name, email, phone number, and payment information when signing up for an account. They will then be assigned a unique user name and ID number, plus a temporary password that will have to be changed.

Hotels will be identified by their name, address, and phone number. Each hotel will have a unique ID number and a status (open, closed, or under maintenance). Hotels will also have descriptive attributes, such as star rating, amenities, services, and policies. Hotels will have different prices depending on the room type, season, and demand.

Rooms will be identified by their number, type, and capacity. Each room will have a unique ID number and a status (available, reserved, occupied, or out of service). Rooms will also have descriptive attributes, such as size, features. Rooms will belong to a specific hotel and have a specific price.

Reservations will be made by customers online, and they will require an account, a room, a check-in date and time, and a check-out date and time. Reservations will have a unique ID number and a status (confirmed, modified, cancelled, or completed). Reservations will also have a total cost, which will be calculated based on the room price, the duration, and any additional fees or discounts.

Transactions will be recorded by the system when a customer checks in or checks out of a room. Transactions will have a unique ID number and a status (pending, paid, or refunded). Transactions will also have a payment method, a payment amount, and a receipt.

Requirements done by louis.

Functional Requirements

Customer Management

Allow customers to create accounts

Allow customers to update their account information

Allow customers to search for hotels and rooms

Allow customers to make reservations

Allow customers to modify or cancel their reservations

Allow customers to view their past reservations

Hotel Management

Allow hotels to create and manage their listings

Allow hotels to set prices for their rooms

Allow hotels to manage their room availability

Allow hotels to process payments

Allow hotels to view their booking history

Reservation Management

Allow the system to track reservations

Allow the system to calculate reservation costs

Allow the system to send confirmation emails to customers

Allow the system to send notifications to hotels when a reservation is made or modified

Allow the system to process payments

Non-Functional Requirements

Performance

The system should be able to handle a large number of users and transactions

The system should be able to respond to requests quickly

The system should be able to handle peak usage times without performance degradation

Security

The system should protect customer data from unauthorized access

The system should use secure payment processing methods

The system should be compliant with all applicable data privacy laws

Reliability

The system should be highly available and reliable

The system should have a robust disaster recovery plan