

# **SOFTWARE ENGINEERING**

## **LAB 1**

### **Scope and objective**

#### **Hotel Management System**

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## **1. Introduction**

### **1.1 Purpose**

The purpose of this document is to define the scope and objectives of the Hotel Management System (HMS), emphasizing the reservation system and additional facilities such as meeting rooms, recreational areas, and swimming pools. This system aims to streamline the hotel's operations, enhance customer experience, and improve overall management efficiency.

### **1.2 Scope**

The Hotel Management System will encompass reservation functionalities for various room types, including the provision of additional facilities such as meeting rooms, recreation areas, and swimming pool reservations. The system will facilitate smooth communication between different departments within the hotel to ensure efficient management.

## **2. System Overview**

### **2.1 Description**

The Hotel Management System is designed to automate and optimize the hotel's daily operations, focusing on reservation management and additional facilities. It will provide a user-friendly interface for both staff and guests, ensuring a seamless experience from booking to check-out.

### **2.2 Objectives**

The primary objectives of the Hotel Management System are as follows:

- 2.2.1 To streamline the reservation process for different room types.
- 2.2.2 To facilitate efficient management of meeting room reservations.
- 2.2.3 To manage recreational areas, ensuring availability and reservations.
- 2.2.4 To handle swimming pool reservations, including capacity management.
- 2.2.5 To provide a centralized platform for staff communication and coordination.

## **3. Functional Requirements**

### **3.1 Reservation Management**

- 3.1.1 The system should allow guests to browse and reserve different room types.
- 3.1.2 Staff should be able to view, confirm, or modify reservations.
- 3.1.3 The system should manage availability, check-in, and check-out processes.

### **3.2 Meeting Room Reservation**

- 3.2.1 The system should provide a calendar for meeting room availability.
- 3.2.2 Staff should be able to create, modify, or cancel meeting room reservations.

3.2.3 Notifications should be sent for reservation confirmations and changes.

### 3.3 Recreational Areas Management

3.3.1 The system should allow guests to book recreational areas such as gyms or game rooms.

3.3.2 Staff should have access to manage and monitor recreational area reservations.

### 3.4 Swimming Pool Reservation

3.4.1 The system should track the capacity of the swimming pool.

3.4.2 Guests should be able to reserve time slots for pool usage.

3.4.3 Staff should monitor and manage pool reservations to ensure compliance with capacity limits.

## 4. Non-functional Requirements

### 4.1 Performance

4.1.1 The system should handle a minimum of 1000 concurrent users.

4.1.2 Response time for reservation processes should be within 3 seconds.

### 4.2 Security

4.2.1 User authentication and authorization mechanisms should be implemented.

4.2.2 Data encryption should be applied to sensitive information.

### 4.3 Usability

4.3.1 The user interface should be intuitive and accessible for both guests and staff.

4.3.2 Training materials and support should be provided for system users.

## 5. Constraints

5.1 The system should be compatible with modern web browsers.

5.2 The project must adhere to budgetary constraints and be completed within the specified timeframe.

## 6. Conclusion

The Hotel Management System aims to enhance the reservation process and improve the overall management of additional facilities. By addressing the specified objectives and requirements, the system will contribute to a more efficient and pleasant experience for both guests and hotel staff.