

**PROJECT 4**  
**ENTITY / RELATIONSHIP DIAGRAM**  
**SLEEP-TITE MOTEL**

**STUDY GROUP – 19**

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Customers
<b>Customer-ID – PK</b>
Name
Phone
Email
Address
CC-Number
CC-Expiry
Loyalty

Rooms
<b>Customer-ID - FK</b>
<b>Room-ID – PK</b>
Check-in-Date
Check-out-Date
Early-Check-in
Extra-Bed
Extra-Key
Late-Check-out
Last-Maintenance

Bookings
<b>Booking-ID – PK</b>
<b>Room-ID – FK</b>
<b>Customer-ID – FK</b>
Booking-Date
Booking-Mode
Booking-Status

Revenue
<b>Invoice-ID – PK</b>
InvoiceDate
<b>Customer-ID – FK</b>
<b>Room-ID – FK</b>
<b>Booking-ID – FK</b>
Subtotal
Taxes
Total-Due
Payment-Status

Staff
<b>Staff-ID – PK</b>
Name
Phone
Email
Address
Designation
Hire-Date
Shift-Time

Housekeeping
<b>HK-ID – PK</b>
<b>Room-ID – FK</b>
<b>Staff-ID – FK</b>
HK-Task
Task-Status
Last-Updated

Supplies
<b>Item-ID – PK</b>
ItemName
QOH
ROL
<b>Supplier-ID – FK</b>
LOD

Supplier
<b>Supplier-ID – PK</b>
Name
Phone Number
Email
Address

STDef.dat	
Invoice Number	1856
Room Rate	\$75.00
HST Rate	15%
Early Check-in	\$12.00
Extra Bed Rate	\$07.00
Extra Key Rate	\$02.00
Late Check-out	\$12.00

## Explanation for Extra Fields

### 1. **Loyalty Member**

- Entity: Customer Details
- Field: Loyalty Member
- Data Type: Boolean
- Purpose: This field identifies whether a customer is part of the loyalty program. It helps the motel manage customer rewards and can be used to offer promotions and discounts, enhancing customer retention and satisfaction.

### 2. **Last Maintenance Date**

- Entity: Room Status
- Field: Last Maintenance Date
- Data Type: Date
- Purpose: Records the last date when maintenance was performed in a room. This field is crucial for tracking the maintenance schedule, ensuring that all rooms are regularly checked and maintained, thereby improving the quality of service and room availability.

### 3. **Booking Mode**

- Entity: Bookings
- Field: Booking Mode
- Data Type: String
- Purpose: Specifies how the booking was made (e.g., Online, Phone, Walk-in). This field helps the motel understand customer booking preferences and can guide improvements in customer service and marketing strategies.

#### 4. **Payment Status**

- Entity: Revenue
- Field: Payment Status
- Data Type: String
- Purpose: Indicates the current status of payment for an invoice (e.g., Paid, Unpaid, Pending). It allows the motel to manage its finances more effectively, ensuring that all payments are tracked and collected appropriately.

#### 5. **Designation**

- Entity: Staff
- Field: Role
- Data Type: String
- Purpose: This field specifies the role or job title of each staff member (e.g., Housekeeper, Front Desk, Maintenance). It helps in categorizing staff and managing tasks and responsibilities based on their roles. This is crucial for assigning tasks efficiently and ensuring that the right personnel are handling appropriate duties.

#### 6. **Shift Timing**

- Entity: Staff
- Field: Shift Timing
- Data Type: String
- Purpose: This field records the working hours or shifts of each staff member. It is essential for scheduling tasks, managing shift changes, and ensuring adequate staffing levels throughout the day. Proper shift management ensures that the motel operates smoothly and that all areas are adequately staffed during peak and off-peak hours.

## 7. Task Description

- Entity: Housekeeping Tasks
- Field: Task Description
- Data Type: String
- Purpose: This field provides a detailed description of the housekeeping or maintenance task (e.g., Cleaning, Maintenance, Inspection). It helps in clearly defining the tasks that need to be performed, ensuring that staff members understand their responsibilities and can execute them effectively.

## 8. Task Status

- Entity: Housekeeping Tasks
- Field: Task Status
- Data Type: String
- Purpose: This field indicates the current status of the task (e.g., Pending, In Progress, Completed). It is crucial for tracking the progress of tasks and ensuring that all assignments are completed in a timely manner. Task status updates help in monitoring performance and identifying any bottlenecks or delays in operations.

## 9. Last Updated

- Entity: Housekeeping Tasks
- Field: Last Updated
- Data Type: Date-Time
- Purpose: This field records the last date and time when the task status was updated. It is essential for maintaining up-to-date information about the progress and completion of tasks. This helps in managing housekeeping schedules and ensures that all rooms and facilities are properly maintained.